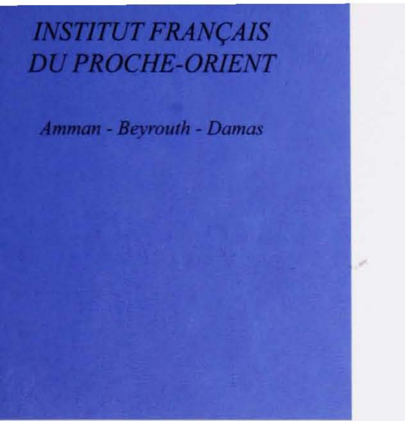


THE EARLY BRONZE AGE IN SIDON

"College Site" Excavations (1998-2000-2001)



Claude DOUMET-SERHAL

with contributions from
Dafydd GRIFFITHS
Emmanuelle VILA
Corine YAZBECK

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BEYROUTH 2006

Sidon est dès la plus haute antiquité l'une des plus importantes métropoles du Proche-Orient. Elle est mentionnée trente-huit fois dans l'Ancien Testament et figure dans la Genèse comme la plus ancienne cité cananéenne, « le premier-né de Canaan ». En raison d'un tissu urbain dense, la ville n'avait jusqu'à maintenant fait l'objet de recherches archéologiques que de façon sporadique ou occasionnelle. La fouille du British Museum sur la parcelle dite « College site » a permis d'atteindre dès la première campagne, en 1998, des niveaux en place du Bronze Ancien. L'un des principaux objectifs du programme était de préciser la stratigraphie de Sidon au III^e^ millénaire. Il s'agit maintenant d'étendre largement la surface de fouille pour chaque niveau afin d'obtenir de larges ensembles, dégager un schéma d'urbanisme et mieux comprendre l'organisation générale de l'habitat.

Ce volume, qui rassemble tout le matériel découvert en 1998, 2000 et 2001, constitue une base fondamentale pour la compréhension de l'évolution des sites du Levant nord au III^e^ millénaire avant notre ère.

Sidon has been one of the most important cities of the Near East since the most ancient antiquity. It is mentioned thirty-eight times in the Old Testament and appears in Genesis as the oldest Canaanite city, "the first born of Canaan". Because it was densely built up, Sidon has until now never been systematically excavated, with only occasional, sporadic attempts at archaeological investigation. In 1998, during the first season of the British Museum excavations on the piece of land known as the "College site", undisturbed Early Bronze Age levels were exposed. One of our main objectives was to define the stratigraphy of Sidon in the third millennium BC. The aim now is to extend the area of the excavations widely in all levels in the hope of uncovering large architectural assemblages so as to reveal and to increase our understanding of the general organization of the habitat.

This volume, which brings together all the material discovered in the 1998-2000 seasons as well as that found in 2001 provides a foundation for understanding the evolution of the sites of the Northern Levant in the third millennium BC.

Couverture : maquette Rami YASSINE
Photo de couverture : Seal impression (fertility scene: human and lion).

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INSTITUT FRANÇAIS DU PROCHE-ORIENT
AMMAN - BEYROUTH - DAMAS
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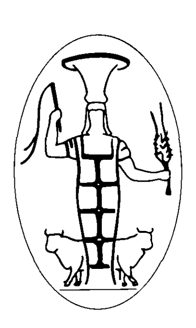
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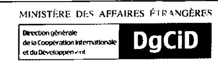
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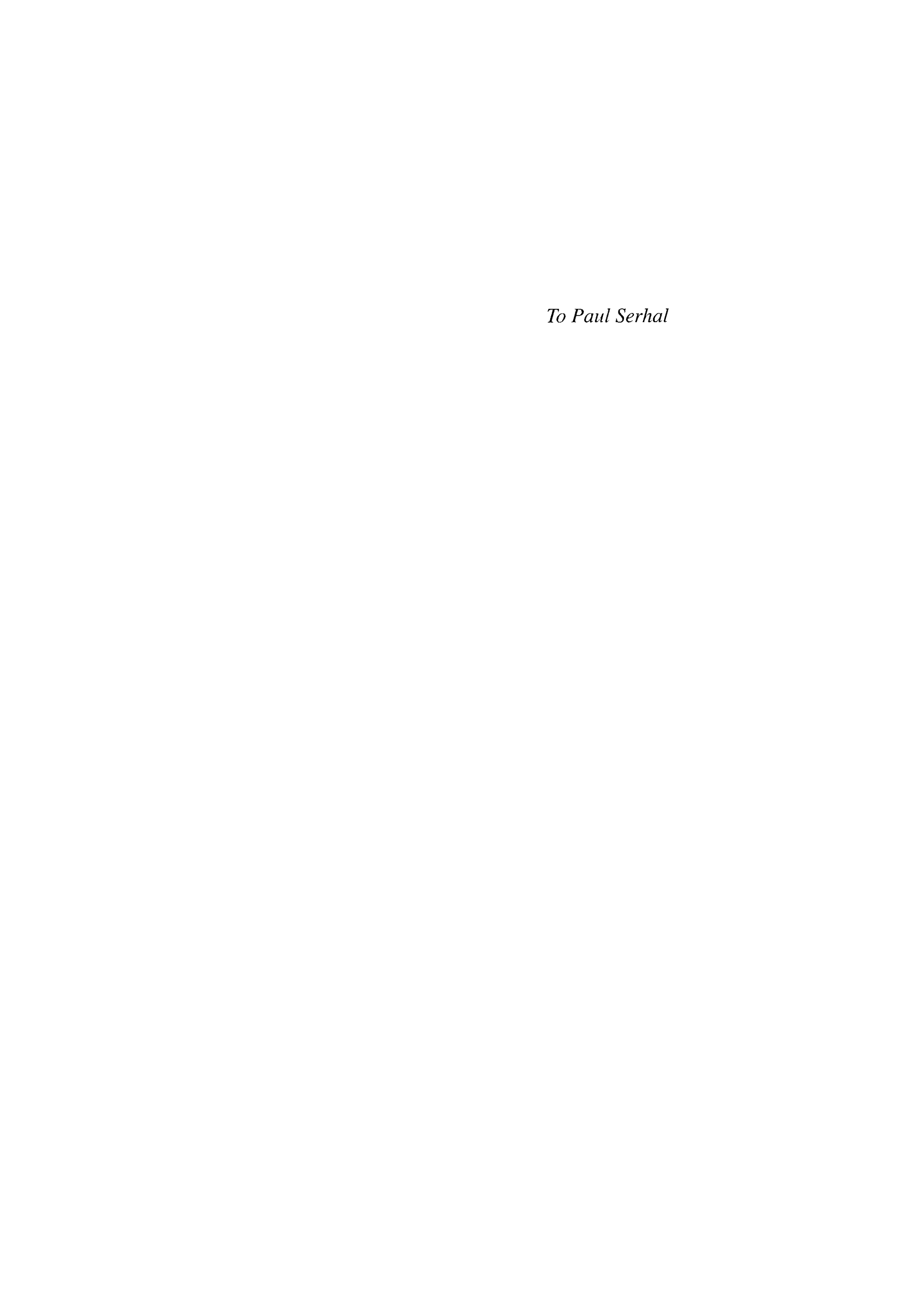
B.P. 11-1424 Beyrouth, Liban
Tél. : + 961 (0)1 420 299
Télécopie : + 961 (0)1 615 866
Courriel : diffusion@ifporient.org

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To Paul Serhal

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PRÉFACE

Dès 1927, Dussaud, dans sa célèbre Topographic historique de la Syrie antique, *remarquait qu'aucune localité « n'a fourni un matériel archéologique plus abondant que Sidon et ses environs immédiats ». Mais il s'inquiétait déjà des « époques anciennes » dont il notait que Contenau et Guigues avaient « retrouvé des vestiges » dans les nécropoles voisines. Avec la fouille du Collège, voici qu'enfin, à Sidon même, des habitats superposés nous permettent de remonter jusqu'au début du troisième millénaire. Cela méritait, sans plus attendre, d'être porté à la connaissance des spécialistes comme des amateurs éclairés de la manière détaillée et précise qui s'impose.*

L'entreprise est, à mes yeux, assez symbolique. Elle témoigne de la renaissance de l'archéologie libanaise après les cruelles décennies de la guerre. Pendant plus d'un siècle, d'Ernest Renan à Georges Contenau et Maurice Dunand, des archéologues français s'étaient intéressés, parmi d'autres, au passé de la cité phénicienne. On trouvera un récit alerte de leur contribution dans les ouvrages si utiles de Nina Jidejian (Sidon à travers les âges, *Librairie Orientale, Beyrouth 1995, version française revue et augmentée de l'édition anglaise parue en 1971 et* l'Archéologie au Liban, *Dar an-Nahar, Beyrouth, 1998). On connaît le temple d'Eshmoun, le Mithraeum, les magnifiques sarcophages des nécropoles d'Ayaa (musée d'Istanboul) ou d'Ain el Helwé (musée de Beyrouth). Mais Sidon ne pouvait pas demeurer seulement une ville achéménide, hellénistique ou romaine. En 1967, le regretté Roger Saïdah explorait, à Dakerman, non loin de la ville, un habitat chalcolithique. On savait aussi, grâce aux tombes du Bronze Moyen exhumées à Jarra, Lebe'a ou Qrayé, que l'âge du Bronze, forcément, devait exister quelque part.*

Les fouilles entreprises par Claude Doumet-Serhal sous les auspices et avec l'aide de nos collègues du British Museum, en apportent la preuve. Une mission explorant ainsi les premiers âges de l'ancienne cité, au cœur de la ville, quel plus beau symbole de la renaissance archéologique évoquée à l'instant ? Claude Doumet-Serhal fit ses premières armes à Paris en rédigeant son mémoire de Maîtrise sur les tombes de Rachidiyeh, bientôt publié par les Annales d'Histoire et d'Archéologie *de l'Université Saint-Joseph, volume I, 1982. Elle soumit ensuite son mémoire de l'École du Louvre, puis soutint, sous ma direction, sa thèse de doctorat à l'Université de Paris I. Grâce à l'obligeance et à l'amitié de Leila Badre, elle avait reçu, en effet, l'autorisation d'étudier le matériel des fouilles menées jadis par D. Baramki et L. Badre à Tell el-Ghassil. Elle publiait bientôt ce travail dans la BAH (C. Doumet-Serhal,* Les fouilles de Tell el-Ghassil de 1972 à 1974, étude du matériel, *tome 146, 1996). La paix revenue, et dès que les circonstances l'ont permis, son enthousiasme et son opiniâtreté aboutirent à l'ouverture du chantier dit « du Collège » à Sidon. L'entreprise, soutenue dès l'origine par la Direction générale des antiquités du Liban, donna lieu, avec une célérité louable, à la rédaction de rapports préliminaires substantiels et réguliers, publiés dans la nouvelle revue de la DGA,* Baal *(n^{os} 3 à 6, 1999-2003).*

Claude Doumet-Serhal avait failli succomber au péché mignon de tous les archéologues : pourquoi ne pas attendre la fin des travaux sur le terrain pour rédiger la somme archéologique qu'on espère définitive ? Je l'ai, au contraire, fortement encouragée à publier sans plus attendre la totalité de la documentation disponible. Sinon, celle-ci devient vite envahissante, quand on tarde trop à la mettre en forme et à la diffuser. Mais on se doute que ce volume est loin de marquer l'achèvement des travaux sur Sidon à l'âge du Bronze et que d'autres suivront, sur le Bronze Moyen et l'âge du Fer. Nous n'en sommes, on l'espère, qu'au début d'une belle entreprise.

C'est peu de dire que Sidon, à l'âge du Bronze, est une terra incognita. *Au vrai, c'est la première fois que des niveaux de ces hautes périodes sont atteints dans le périmètre de la vieille ville phénicienne. Parallèlement aux fouilles du centre-ville de Beyrouth, c'est un petit morceau du centre-ville de Sidon qui est ici exploré. On lira, dans le livre de Claude Doumet-Serhal, dans quelles circonstances le « terrain du Collège » a été sauvegardé pour la fouille, grâce à un achat très judicieux par la DGA elle-même, en 1967. Ce terrain offrait, sur la ligne du rempart médiéval, on le*

savait depuis longtemps, une occasion unique de s'enfoncer dans des couches archéologiques de « haute époque ». Sur la parcelle voisine, et cela aussi est symbolique d'une certaine renaissance, la famille Audi a su mettre en valeur, avec un goût très sûr, un patrimoine familial de grand intérêt. À côté, la fouille du Collège explore la mémoire des grands ancêtres. En ce lieu attachant, non loin du « Château de la Terre » (ou « de Saint Louis », ou, tout simplement la « Qalaat el Mezzé »...) et de la colline des murex, ces premiers sondages ont révélé une séquence archéologique qui repose directement sur le terrain vierge, le ramleh *local. D'abord une zone d'habitat du Bronze ancien, riche de six niveaux superposés dont les derniers (niveaux 3 à 6) vont du BA II A, vers 3000 av. J.-C., au BA III B, vers 2300 av. J.-C. Ils sont suivis, après un fort dépôt de sable de 1,5 m d'épaisseur, de cinq niveaux du Bronze Moyen, qui s'étagent du début du XIX^e siècle à la fin du XVIII^e siècle. Durant cette phase, les liens avec la Crète minoenne sont nets. De belles tombes illustrent cette période, avec un matériel métallique remarquable. La dernière moitié du second millénaire (le Bronze Récent) voit les importations égéennes s'amplifier. Une « salle souterraine » dallée de grandes pierres est bien datée entre 1390 et 1120 av. J.-C. par le* ^{14}*C. Enfin, des niveaux de l'âge du Fer ont fourni des témoins des plus anciennes exportations de céramique grecque sur la côte levantine et même, pour satisfaire la fibre nationale libanaise, deux fragments d'inscription phénicienne... (On verra un excellent résumé de tous ces résultats dans* AHL, *vol. 18, automne 2003).*

Le présent volume de la BAH *est consacré exclusivement au Bronze Ancien. Un premier chapitre expose la « chronique des fouilles » de 1998 à 2001. Il est suivi de la publication de la céramique, de 23 empreintes sur jarre de cylindres-sceaux, proches de celles déjà connues à Byblos, des petits objets et du matériel lithique. Qui ne connaît la difficulté principale de l'archéologie des « hautes époques » en terre libanaise ? Sur ces sites prestigieux qui ont nom Tyr, Sidon, Beyrouth ou Byblos, les Romains ont probablement fait disparaître la quasi-totalité de l'ancienne Tyr. Beyrouth et Sidon, jusqu'à ces dernières années, étaient occultées par le développement de cités perpétuellement reconstruites sur elles-mêmes. Byblos seule échappait à ce destin, mais on sait le problème particulier posé ici par la méthode de fouille employée. Avec les travaux du centre-ville de Beyrouth, les archéologues ont pu, ces dernières années, lever un coin du voile. A Sidon, la fouille du Collège, de son côté, nous offre, sur une petite surface, une belle continuité stratigraphique sur près de trois millénaires.*

Le comité de lecture de la Bibliothèque Archéologique et Historique *n'a guère hésité, en décembre 2002, à accueillir dans cette série prestigieuse, sur ma proposition, le volume de Claude Doumet-Serhal. Le directeur général des antiquités du Liban, Monsieur Frédéric Husseini nous a autorisés à publier ce volume dont les prémisses, comme il se devait, avaient été confiés en priorité à la revue* Baal. *Ainsi, cette fouille de nos collègues et amis libanais et anglais diffuse aujourd'hui le détail de ses résultats grâce à une institution de recherche française. S'agissant de Sidon, on peut y voir le signe d'une collaboration internationale où les archéologues français, qui furent jadis si actifs dans cette ancienne cité et ses environs, jouent encore, de cette façon, un rôle non négligeable.*

Jean-Louis Huot

Professeur émérite à l'Université de Paris I
Ancien directeur de l'Institut Français
d'Archéologie du Proche-Orient

Foreword

The British Museum is proud and honoured to be associated with the excavations at Sidon directed by Dr Claude Doumet-Serhal and undertaken in conjunction with the Lebanese Department of Antiquities. The project began in 1998 and followed on from the fruitful collaboration between the British Museum and the Department of Antiquities that resulted in the very successful special exhibition "Beirut: uncovering the Past" which was shown at the British Museum in 1996. Following this exhibition the hope was expressed that the British Museum might get involved in a field project in Lebanon, and accordingly a small group comprising Claude Doumet-Serhal, Anne-Marie Maila-Afeiche, Carole Mendleson and myself visited Lebanon in February 1997 to look at possible sites for a new excavation. For various reasons Sidon was selected, not least because there were evidently substantial deposits accessible in areas which had been requisitioned by the Department of Antiquities, including the so-called College Site to the north of the Castle of St Louis. Also, it was hoped that any excavation would yield important information about Sidon in the Phoenician and Persian periods, when Sidon was known to have been one of the most important centres in the Ancient Near East. In the event, it transpired that the first millennium BC deposits no longer survive in the north part of the College Site where excavations have been concentrated, although there is a good chance that they are still preserved in the south part of the College Site where as yet there has been very little excavation. In the meantime, extensive Early Bronze Age deposits and many burials of the Middle Bronze Age have been found in the north part of the site. Some 20 of the Middle Bronze Age burials discovered in the 2001 season have recently been published in Levant *vol. 36 (2004), p. 89-180, while the important Early Bronze Age deposits uncovered between 1998 and 2001 are the subject of the present volume.*

In the course of the excavations six different levels or strata were identified as dating to the Early Bronze Age (EBA), with settlements that were basically domestic in character. There was a kitchen area in the latest of these EBA levels. Amongst the pottery of particular interest is a small jug with a handle ending at the top in a ram's head which finds a parallel at Byblos. More common, however, were a large number of vessels with combed decoration and sherds with criss-cross painted designs. This is the first recorded instance of EBA pottery of this kind having been found at Sidon, and Sidon now joins the small number of Lebanese sites including Byblos, Tell Arqa and Beirut to have produced EBA pottery of this kind. A large number of seal impressions showing figural decoration in the form of men, lions and goats are also of great interest. Some can be paralleled at Byblos, while others are at present unique to Sidon. The excavations at Sidon then, albeit unintentionally, have made a major contribution to our understanding of the EBA in the Levant. At the end of the EBA the whole area was quite deliberately covered with a thick layer of clean sand, up to 1.40m in thickness. The reasons for this are at present obscure.

Since 2001 there has been further work in the EBA levels, which has revealed evidence for some industrial activity, and it is to be expected that future work at the site will uncover more important information about the EBA. All those involved in this project owe a considerable debt of gratitude to the Lebanese Department of Antiquities, and to its successive directors Dr Camille Asmar and Mr Frederic Husseini. Without their help and support, and without their continuing collaboration, none of this work would be possible. It is also important to put on record the assistance received from the Hariri Foundation, and in particular Mrs Bahia Hariri, Byblos Bank, Nokia Lebanon and other Lebanese organizations and individuals.

John E. Curtis,

Keeper,
Department of the Ancient Near East,
The British Museum

Abstract (French)

En 1967, la direction générale des Antiquités du Liban, grâce à l'émir Maurice Chéhab, ancien directeur général, acquiert à Sidon trois parcelles de terrain au centre de la ville, d'une superficie totale d'environ 30 000 m^2. La première parcelle correspond à celle du château Saint-Louis. La seconde est séparée de la première par une route, et la troisième, que l'on appelle « College Site » ou « chantier des collèges », située sur la pente nord du tertre, avait été occupée par des établissements d'enseignement. Il s'agissait d'une part du collège des Frères Maristes et d'autre part de l'école de la Société protestante américaine, tous deux démolis aux alentours de 1965. C'est là que Maurice Dunand avait effectué certains de ses sondages.

En 1998, la direction générale des Antiquités du Liban donne l'autorisation au British Museum d'entreprendre des recherches dans la ville. D'emblée, l'opportunité de fouiller systématiquement pour la première fois « la petite Sidon » si connue historiquement par les textes paraissait être une occasion unique.

Le financement des travaux est assuré par le British Museum, la British Academy, le Council for British Research in the Levant, le Foreign and Commonwealth Office ainsi que des subsides privés libanais, la Fondation Hariri, la banque Byblos et Nokia Liban. Les travaux sont soutenus par la direction générale des Antiquités du Liban. L'équipe comprend des membres du British Museum et une quinzaine d'étudiants de l'université Libanaise de Sidon. John Curtis, conservateur général du département des Antiquités du Proche-Orient au British Museum, est conseiller spécial de la mission.

Parallèlement à cette fouille, une série de carottages a été pratiquée avec l'université d'Aix-en-Provence dans la vieille ville et la zone du port pour essayer de délimiter et de dater les bassins portuaires.

Le secteur choisi pour commencer les fouilles en 1998 est le « chantier des collèges », plusieurs considérations ayant guidé ce choix :

– la découverte, en premier lieu, vers 1880, lorsque furent creusées les fondations du collège de la mission américaine, de fragments de marbre d'une base de colonne décorée de moulures et d'un chapiteau achéménide à protomes de taureaux adossés l'un à l'autre. Charles Clermont-Ganneau a supposé qu'on était là en présence de vestiges du jardin d'agrément de l'époque perse, « l'*apadana* de Sidon » mentionné par Diodore de Sicile ;

– deuxièmement, ne possédant aucun renseignement quant à la topographie de la ville, force était d'admettre l'hypothèse d'une certaine continuité dans l'installation et le développement au sein du noyau de la ville. À l'époque médiévale la ville se dote d'un rempart. Le « chantier des collèges » est situé le long du rempart médiéval, à l'emplacement même du fossé de la ville. Par conséquent, ce chantier semblait être le lieu idéal pour accéder aux niveaux les plus anciens de la ville, car un fossé est généralement considéré comme un lieu de protection sur lequel on ne construisait pas.

Maurice Dunand n'avait trouvé dans ses sondages de 1967 sur le « chantier des collèges » que des niveaux perturbés. Il décrit d'ailleurs, dans son rapport, une situation tout à fait comparable à celle que nous avons nous-mêmes expérimentée en début de fouille :

« À l'emplacement des fondations de l'école et bien que nous ayons atteint par place une profondeur de 5 m », écrit-il, « aucune stratigraphie n'est observable. Les murs sont arrachés, c'est à peine si l'on commence à sortir de ce désordre ». Il aura fallu trois semaines d'excavation à la pelle mécanique en 1998 pour atteindre des niveaux stratigraphiques non perturbés. De nombreux fragments de colonnes, de chapiteaux et de statues ont été découverts dans le remblai, notamment une statue d'Hermès vêtu d'une *chlamys* qui lui recouvre une épaule.

Ce sont les principaux résultats des travaux entrepris en 1998, 2000 et 2001 qui sont présentés dans cet ouvrage. La stratigraphie continue pour la ville de Sidon au III^e millénaire apparaît pour la première fois.

Sidon est actuellement le seul site de la côte libanaise où les niveaux du début du III^e millénaire sont aisément accessibles aux archéologues, ce qui présente l'un des principaux intérêts de la fouille.

La stratigraphie de Sidon est composée d'une séquence de six niveaux d'habitation, suggérant un développement continu et une évolution graduelle depuis la fin du Bronze Ancien I jusqu'à la fin du Bronze Ancien III. On note cette même continuité de la fin du III[e] au début du II[e] millénaire. Le seul hiatus observable se situe entre la fin du Bronze Ancien I et le début du Bronze Ancien II, c'est-à-dire aux alentours de 3000 avant J.-C.

Le substrat rocheux atteint correspond au niveau **1**. Il est constitué par un grès siliceux consolidé, le *ramleh* local, que l'on a également retrouvé lors des campagnes de carottages en bordure des bassins portuaires. Dans ce niveau le plus ancien, trois variétés céramiques sont à signaler, l'une à engobe noir et rouge (dont l'origine fait couler encore beaucoup d'encre), matériel typique du début du Bronze Ancien I, ainsi que de la vaisselle commune qui reflète la persistance des traditions chalcolithiques, telles que les bols à parois droites et les bases piédestales. L'étude de la fréquence d'attestations des différents genres de céramique démontre que la majorité des vases sont à ce niveau des bols servant à boire ou à manger, alors que dans les niveaux supérieurs ce sont les formes fermées servant au stockage ou au transport qui deviennent majoritaires. Certaines formes se distinguent par leur argile de couleur blanche *(fabric* 5*)* très caractéristique du niveau **1**.

La première découverte à Sidon d'une installation humaine de l'époque chalcolithique se situe à Dakerman, un site à environ 1 km au sud du chantier que nous fouillons actuellement. Dakerman est situé à près de 300 m d'une vaste crique ronde désignée, sur la carte que Gaillardot avait établie pour la *Mission de Phénicie* d'Ernest Renan, comme port « sud égyptien ». Le programme de carottage entrepris ces dernières années a cependant démontré que la crique ronde n'a jamais été utilisée comme un port protégé, tout au plus comme une escale ouverte vers le large qui permettait le halage de navires sur les plages. C'est cette constatation, ainsi que la découverte sur nos fouilles d'un niveau d'occupation sur le substrat rocheux, qui constituent chronologiquement la continuation de l'occupation de Dakerman. On assiste donc au début du III[e] millénaire à une nouvelle localisation de l'habitat qui désormais se concentre sur le tell beaucoup plus proche du port protégé, le port nord près du Château de la mer. Cette nouvelle organisation de l'espace urbain marque un changement sensible par rapport à l'époque précédente et signale le début des échanges commerciaux liés au développement économique et portuaire de Sidon.

Le niveau **2** qui succède immédiatement au niveau **1** est une période assez pauvre, une sorte de hiatus avec une couche d'environ 20 cm de sable contenant très peu de tessons.

Les niveaux **3** et **4** qui suivent et qui correspondent au Bronze Ancien II A/B se distinguent dans le domaine de la poterie par la disparition de la majorité des types anciens et par l'apparition de nombreux types nouveaux tels que les bols carénés par exemple, véritables fossiles directeurs du Bronze Ancien II. Un fragment de cruche à engobe noir et lustrage vertical provenant du niveau **3**, attesté à Byblos ainsi qu'en de nombreux sites de Palestine, est un type particulier que l'on retrouve dans les tombes d'Abydos de la première dynastie ainsi qu'à Sakkarah. Il s'agit d'un des éléments permettant de relier la chronologie palestinienne, c'est-à-dire le début du Bronze Ancien II, à la chronologie égyptienne.

Les niveaux **5** et **6** qui correspondent au Bronze Ancien III A/B représentent une continuation des niveaux précédents.

Aucun tesson de céramique dite de Khirbet Kerak qui caractérise les niveaux du Bronze Ancien III de Palestine n'a été retrouvé à Sidon. En revanche, la catégorie céramique qui, en terme de pourcentage, définit réellement le caractère de la production de la fin du III[e] millénaire, est la jarre dite « *hole-mouth* » ou jarre sans col à parois côtelées.

Cette production a un double intérêt : elle indique d'abord une distribution géographique particulière, en l'occurrence des comparaisons non pas avec les jarres sans col trouvées en Palestine à la même époque, ce qui correspondrait à Sidon au faciès classique, mais plutôt un rapprochement pour la première fois à Sidon avec les modèles syriens provenant de Hama, Tell Mardikh et du Amuq. D'autre part, le pourcentage élevé de jarres qui culmine à la fin du Bronze Ancien III B (niveau **6**) indique une tendance vers la standardisation des formes, vraisemblablement liée aux nécessités d'une production accrue. Cette standardisation doublée d'un accroissement de la quantité de tessons ramassés sont deux indices importants, indiquant non seulement un mouvement d'urbanisation, mais témoignant également de la vigueur de Sidon jusqu'à la fin du III[e] millénaire avant notre ère. Les finitions les plus caractéristiques sont les peignages horizontaux ou croisés.

Le niveau **6** qui correspond à Sidon au niveau le plus récent du Bronze Ancien et qui précède le premier niveau du Bronze Moyen I/II A renferme une poterie dont les caractères ne la différencient pas du niveau **5**. Cette poterie est qualifiée de Bronze Ancien III B pour souligner l'étroite parenté avec celle du Bronze Ancien III.

Certaines formes marquent cependant l'originalité de ce niveau :

– la jarre peignée est extrêmement proche d'exemplaires bien datés dans la nécropole de Gizeh entre la V[e] et la IV[e] dynastie aux alentours de 2500 ;

– la cruche, dont l'attache supérieure de l'anse se termine par une tête de bélier qui pose son museau sur le rebord du vase, est comparable à la double cruche à une anse provenant de Byblos datée entre 3100 et 2800 avant

notre ère. Maurice Dunand trouve d'autres modèles similaires dans le temple de l'enceinte sacrée où les dépôts d'offrandes sont datés de l'époque précédant la destruction de la ville vers 2200-2150 av. J.-C.

Pour ce qui est de l'architecture, les fouilles devront être poursuivies pour permettre d'apprécier l'étendue et le caractère des aménagements. On constate à ce stade la présence quasi permanente des sols enduits de chaux associés à des installations ayant servi à des usages domestiques. Au niveau **6** le plus récent, l'installation domestique est composée d'un mortier en basalte, d'une meule dormante en calcaire et d'un bassin également en basalte que l'on a retrouvés adjacents à de larges lattes de pierres plates ayant servi de table de travail.

Vingt-quatre empreintes de sceaux cylindres sur jarres ont été retrouvées à Sidon, certaines en surface, d'autres en stratigraphie. Ces impressions ont été déroulées horizontalement tout autour de l'épaule, mais parfois aussi obliquement. L'une des originalités de cette glyptique est d'une part la mise en évidence d'une tradition levantine déjà bien connue sous l'influence de Byblos et d'autre part la découverte d'un particularisme régional caractéristique des artisans sidoniens.

Les empreintes de cette époque présentent les motifs géométriques classiques qui consistent en des quadrillages. Un seul motif, celui de la spirale verticale imbriquée, présente des analogies iconographiques avec des modèles trouvés à Lerna en Grèce aux alentours de 2500-2400 avant notre ère. Les motifs animaliers sont couramment attestés ; le lion est l'animal que l'on retrouve le plus fréquemment représenté.

Le motif du lion poursuivant un bouquetin tête-bêche, caractéristique du style de Byblos, se retrouve également à Sidon. Ces empreintes sont tellement similaires qu'on peut supposer qu'elles ont été gravées dans un même atelier. Mais les empreintes les plus remarquables de Sidon se rattachent à une catégorie de décors qualifiés de « scènes de culte ». Un groupe d'empreintes met en scène un personnage, dont l'apparence est celle d'un animal, qui lève un bras accompagné du lion. Bien que ce personnage ne soit pas tout à fait semblable au personnage à grandes cornes de bouquetin en attitude humaine couramment attesté en Palestine, il s'en rapproche néanmoins considérablement par le même principe de l'humain auquel on a donné les apparences d'un animal. Une autre empreinte illustrant un rituel de fertilité représente un personnage toujours accompagné du lion, debout, le sexe ithyphallique bien marqué, qui lève un bras, les trois doigts de la main tendus, et qui de l'autre main brandit un rameau de végétation.

La fouille de Sidon présente un intérêt certain, à plus d'un titre : la complexité et la richesse archéologiques de chaque étape du développement de la ville nous sont enfin révélées pour la première fois ; des jalons dont nous n'avions jusque-là que soupçonné l'existence se dessinent.

Cette fouille est, après Beyrouth, la deuxième fouille urbaine au Liban. Contrairement à Beyrouth, les possibilités sont ici illimitées. Ce qui rend ce projet unique en son genre, c'est que les travaux sont entrepris sur des terrains expropriés par l'État dans le seul but de la recherche archéologique. Le principal résultat de nos travaux nous paraît être l'élaboration pour la première fois d'une séquence et d'un matériel de référence du début du III^{e} millénaire. Cette séquence présente nombre de particularités, mais se distingue par un développement continu et une évolution graduelle. Le matériel archéologique met en évidence le caractère régional et le rythme propre de la région du Liban sud. L'impression générale est celle d'une articulation continue et ininterrompue dans le processus d'urbanisation. Dans l'ensemble, le matériel de Sidon témoigne d'affinités et de contacts surtout avec la Palestine, plus rarement avec la Syrie. L'influence syrienne se fait cependant sentir au Bronze Ancien III par la fabrication locale de jarres sans cols du type *hole-mouth* et par certains détails de peignages. Cette même influence se retrouve dans le premier niveau du Bronze Moyen.

La faune est traitée par Emmanuelle Vila, le matériel lithique par Corine Yazbeck et l'étude des pâtes céramiques par Dafydd Griffiths.

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Team members include Dr John Curtis, Keeper of the Department of the Ancient Near East at the British Museum who acts as special advisor to the excavation, Ms Sarah Collins (British Museum), Mr. Rod Brook (Wessex Archaeological Trust), Mr Hugh Barnes (surveyor), Dr Dafydd Griffiths (ceramic petrologist, University College London), James Osborne (Toronto University) and a team of students from the Lebanese University at Sidon.

Preliminary reports and several articles have been regularly published in *BAAL* and *AHL*.

This volume is at present the most comprehensive guide to the third Millennium in the Lebanon and includes all the material uncovered in 1998, 2000 and 2001. Animal bone deposits from the 2002 season have also been included as this data is necessary in order to give a general overview on the fauna of this period.

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Introduction

The city-state of Sidon, 20 km south of the Lebanese capital Beirut, was one of the most important ancient Canaanite and Phoenician coastal cities. However, like other places in modern Lebanon, most of what we knew about it until now came from contemporary Egyptian, Babylonian and Greek records.

In trying to reconstruct its history, there were only two main sources of physical evidence both from outside the city itself. The first of these sources are the large necropoli on the outskirts of Sidon[1] reported by 19th century archaeologists, Consular Agents and European and American residents in Lebanon. These necropoli yielded numerous sarcophagi including those of the Sidonian king Tabnit (end of the 6th century BC) king Eshmunazor (5th century BC), and the famous "Alexander sarcophagus"[2] depicting battle and hunting scenes. Further necropoli were discovered and excavated in the 20th century.

The second source of information on Sidon's past comes from the site of Bostan-esh-Sheikh, three kilometers southeast of the city near the banks of the Awali River.[3] The temple complex of Eshmun (God of healing later identified with Asklepios) was partly excavated first by Th. Macridi Bey and W. von Landau in the very early years of the 20th century and then by M. Dunand from 1924 onward. Work conducted in 1996[4] by R. Stucky carried on where they had left off.

However, as useful and informative as these discoveries are, they remain nevertheless a mere peephole into what remains to be discovered.

Until recently a major obstacle to any further in-depth research into the heart of the ancient city of Sidon, the essence of any definitive knowledge, was the modern city which covers what lies below. Due to the propitious acquisition of three sites by the Lebanese Directorate General of Antiquities in the early sixties access to the ancient layers of the city is now possible. These sites are located on the huge Tell on which the ruins of a castle known as the "Castle of St Louis" was built (**Fig. 1**). The most recent factual information about ancient Sidon or "Little Sidon", Sidon the "port city" or "Sidon Land by the sea" as it is also referred to on ancient inscriptions from Eshmun and in the annals of Assyria, is based on the discoveries found during the First World War, in 1967 and since 1998 at the afore-mentioned three sites (Saint Louis Castle with Murex Hill, Sandikli and College)[5] (**Pl. 1**).

EARLY ARCHAEOLOGICAL DISCOVERIES FROM THE MOUND OF SIDON

The first organized archaeological excavation began in 1914 under the direction of the French archaeologist, Georges Contenau[6] (**Fig. 2**). Throughout the 1914 and 1920 excavation work concentrated around the ditch of the land castle atop the ancient tell (**Fig. 1, Pl. 1**). In 1969 excavations undertaken by another French archaeologist, Maurice Dunand[7] moved to an adjacent site, an area 5.000 sq.m east of the castle where he found the remains of a Roman bath. Dunand also chose to take soundings in a third area north of the castle known as "College site", an area approximately 6.500 sq.m., where the current excavations are taking place (**Pl. 2**). "College site" was named after two institutions built on the site, the American Protestant Mission College and the Marist College. Both were demolished between 1961 and 1963. The Marist College consisted of two separate buildings. One, erected in 1925, was made of stone with rock and cement based foundation pillars sunk to a depth of 2.05 m. The other was built in the local architectural style known as "Fakhr al-Din's bathhouse" In 1856 this last building, which had belonged to a Turkish dignitary, was bought by the "Companions de Jésus" and later by the Marist order in 1908. The Marists extended the building by adding two floors after flattening a cupola on the original terraced roof. Descriptions of various archaeological deposits and

1 - N. Jidejian, 1999, p. 15-24.

2 - N. Jidejian, 1971, fig. 32-80.

3 - For the suggestion of another temple complex in Helalieh, see A. Caubet, 1999, p. 14.

4 - G. Contenau, 1924a, 1924b; M. Dunand, 1926, p. 1-7; M. Dunand, 1965, p. 105-109; M. Dunand, 1971, p. 19-25; R. Stucky, 1998, p. 4.

5 - C. Doumet-Serhal, 1999, p. 2-3; p. 30-39.

6 - G. Contenau, 1920, p. 1-147; 1923, p. 261-281; 1924a, 1924b.

7 - M. Dunand, 1926, p. 1-7; 1967, p. 27-44.

architectural features were published in four articles by Contenau[8] but they lack the scientific method of excavation that has become commonplace today namely the special attention given to archaeological layers and their relation to structures. The few sherds published by him do not attempt in any way to relate their relative chronological position to stratigraphy. As for Dunand,[9] he only gave a brief synopsis of his work in a short preliminary article, and did not publish his excavation of the Roman bath.

Sidon, as described by the Reverend Isaac Bird,[10] had become by 1872 a prosperous station of the American Protestant Mission. Marble remains were found during foundation work for the construction of the new American Protestant school, on College site. Amongst these were fragments of the shaft and the base of a column, as well as a double protome capital (**Fig. 3**) featuring two bulls crouching back to back (Beirut National Museum).[11] Clermont-Ganneau,[12] using the writing of Diodorus of Sicily came to the conclusion that these objects might be from the pleasure gardens or *Paradeisos* of the Persians created in the reigns of Artaxerxes III, Ochus and Tennes of Sidon. The Sidon protome has a forked silhouette similar to those found at Persepolis and Susa.

Three other protomes have been found elsewhere at non-Persian sites. One in Eshmun,[13] another on the island of Arvad (Damascus Museum) which have four bulls crouching back to back in a cross design and which are dated to the end of the Persian and the beginning of the Hellenistic Period.[14] The third protome was discovered in 1890 at Salamis by Tubbs and Munro (now housed in the Department of Greek and Roman Antiquities at the British Museum), and is dated to the 3rd century AD. It was a support for a statue[15] and, by the slope of the necks and the lowered heads of the bulls, has a silhouette reminiscent of an Ionic capital.[16]

Sidon has customarily been considered the oldest city of the Phoenicians. The arguments in favour of this view are firstly, the mention in the Old Testament of Sidon as the "first born of Canaan" and secondly the peculiar usage of the term Sidon and Sidonians in the Old Testament and in Greek writings. In the *Iliad*, for example, the terms Sidonian and Phoenician occurs in parallel lines and are understood as synonyms. On the other hand, for Strabo and others, Tyre was the oldest city with Herodotus dating its foundation at about 2750 BC. The various champions of each city expressed this old rivalry (between Tyre and Sidon) in extravagant claims of antiquity and superiority. For Tyre the matter is almost settled. The stratigraphic sondage of 150 square meters directed by Patricia Maynor Bikai in 1973-1974 showed that the city was in almost uninterrupted occupation from the Early Bronze Age (2900 BC).[17] This was one of the surprises furnished by the excavation since, up until then, it had been thought from various textual references that Tyre had not flourished before the reign of Hiram I. At Sidon our excavations have revealed remains dating to the end of the fourth and the beginning of the third millennium BC.

THE BRITISH MUSEUM EXCAVATIONS (Fig. 4-5; Pl. 2-4)

In the summer of 1998, permission was granted by the Lebanese Directorate General of Antiquities for a British team[18] to excavate in Sidon under the direction of the writer. In conjunction with the excavations on the mound, a series of core samples were taken from around the inner and the so-called outer port and on the streets of the old souk of Sidon to try to determine the development of Sidon's harbour. Another goal of the core sampling was to identify through pollen analysis any forestation which might have existed around the harbour. Analysis of these cores was undertaken at the University of Aix-en-Provence.[19]

EXCAVATIONS AND RECORDING TECHNIQUES

Work began in August 1998, and continued in 2000 and 2001 with a break in 1999. All seasons of excavation at Sidon were begun, for at least two weeks each season, with the use of a mechanical excavator and trucks to remove the large amount of backfill.

Demolition of the old college buildings on College site revealed that they had been built of sandstone (*ramleh*) with foundations of "large pillars erected at every corner and along the sides and then sunk to a depth of 4 m".[20]

These foundation pillars (**Pl. 3-4**) sunk into the soil and aligned on two parallel lines, are probably those described in 1967 by Dunand. They consist of a stone conglomerate of greatly varying size with a large proportion of a light brown mottled mortar mixed with sand and lime. Part of the south face of foundation pillar 013 has a flat surface with a concrete flat cement-like facing. Dunand describes

8 G. CONTENAU, 1920, p. 1-147; G. CONTENAU, 1923, p. 261-281; G. CONTENAU, 1924a and 1924b.
9 - M. DUNAND, 1939, p. 79-81; M. DUNAND, 1940, p. 118; M. DUNAND, 1941, p. 88-89; M. DUNAND, 1942-1943, p. 82-83; M. DUNAND, 1967, p. 27-44.
10 - I . BIRD, 1872, p. 404.
11 - C. DOUMET-SERHAL *et al.*, 1998, p. 96, 178; C. ASMAR, 1997, p. 2-6.
12 - Ch. CLERMONT-GANNEAU, 1902, p. 217- 267; 1921, p. 106-109.
13 - R. A. STUCKY, 1998, p. 5, fig. 3; R. A. STUCKY, 2004, for a recent discussion see p. 214-225.
14 - M. YON & A. CAUBET, 1993, p. 50-52.
15 - Ch. W. WILSON, 1980, p. 60-70, n° 578.
16 - G. ROUX, 1980, p. 257-274.
17 - P. M. BIKAI, 1978, p. 70: "Tyre was first occupied sometime after about 2900 BC."
18 - J. CURTIS, 1999, p. 27-28.
19 - C. DOUMET-SERHAL, 1999, p. 40-41; C. MORHANGE *et al.*, 1999, p. 42-48; K. ESPIC *et al.*, 2002, p. 28-36; G. LEROUX, A. VÉRON & Ch. MORHANGE, 2003, p. 37-41.
20 - M. DUNAND, 1967, p. 35.

in his report[21] his experience in excavating this site, which was very similar to what we encountered during the 1998 season. "*The disturbance and clutter at the upper levels of the site made any attempt at stratigraphic research impossible. What is more, having reached a depth of 5 m in the vicinity of the foundations where the Persian capital was originally unearthed, no further fragments of marble were found. The only worthwhile discoveries were fragments of Roman Arezzo pottery and a few oil lamps dating to the 1st century AD. A few fragments of hollow terracotta statuettes, some having belonged to larger objects, were also found*".
Area 1b (**pl. 2**; approximately 400 sq. m) was opened in the first season of excavation.

METHODOLOGICAL BACKGROUND TO THE STRATIGRAPHY

During the excavation each soil layer in area Ib was assigned a level number, architectural features were also assigned a number and during the writing of this volume these were converted into strata designations. Each table of locus index for each stratum is accompanied by a short description (column 3). The first column gives the number of the locus or find spots; the second column is the number of its trench. The excavation revealed 5 levels of Early Bronze Age occupation before bedrock was reached (6 levels in total). Locations of the section drawings are indicated on **plate 4**. A key to the conventions used on the sections is found near each drawing. The sections, like the plans, are drawn to a scale of 1: 10 or 1: 20 and reduced accordingly. Level and locus numbers are placed within the appropriate layers of soil. The approximate vertical position of each stratum is found to the left of the section drawing.

METHODOLOGICAL BACKGROUND TO THE STUDY OF POTTERY

In approaching the ceramic data from these strata, three essential factors were considered: technological aspects, surface finish, with or without decoration, and shape. The technological aspects of the ceramics are very relevant at Sidon particularly between strata 1, 2 and 3 and were found to be of chronological significance in the formation of the type series. A special chapter (chapter VII) in this book will detail the difference in the quality of clay used by the potter. The number of complete or reconstructable forms was insufficient to classify the vessels according to the overall shape of known complete forms. Therefore at Sidon the rim shape of a vessel is the essential primary factor according to which the present type series has been constructed. The pottery drawings show the section and interior of the vessel to the left and the exterior to the right. Diagonal hatching indicates a red, or near red slip on the surface. Solid black lines indicate black paint or another colour as noted in the description as well as burnishing. All plates have the appropriate scale added, and where necessary all variations in scale are clearly indicated. Each plate of drawings is accompanied by descriptions. The first column gives the number of the object on that plate; the second column gives the register number of the piece according to the register system of the excavation; the third column is the name of the object; the fourth column is the locus number and the fifth column gives a description of the object found and the type of fabric in which it was made (fabric 1 to 5). Colour readings are given according to the 1973 edition of the *Munsell Soil Colour Charts*. The abbreviations "int." interior, and "ext." exterior, were used to indicate the location of the surface decoration.

The present volume, the first of the series, is a chronicle of the excavations and reports on the Early Bronze Age. Subsequent volumes will include chapters dealing with the Middle Bronze Age, the Late Bronze Age strata and the Iron Age occupation. This will allow the reader to follow the excavation's development over time.

	Early Bronze Age levels Stratum	Period
1	Bedrock, 6.10 m – 6.30 m[22]	Chalcolithic/EB I
2	Sand level 6.30 m – 6.50 m	EB I/ EB II
3	6.50 m – 7.00 m	EB II A
4	7.00 m – 7.65 m	EB II B
5	7.65 m – 8.40 m	EB III A
6	8.40 m – 9.00 m	EB III B
9.00 m sand level (Middle Bronze Age burials).		

Table 1 - General strata and Chronology of Sidon.

21 - M. DUNAND, 1967, p. 38.
22 - All heights are given from site height which is approximately 2.7 m above sea level.

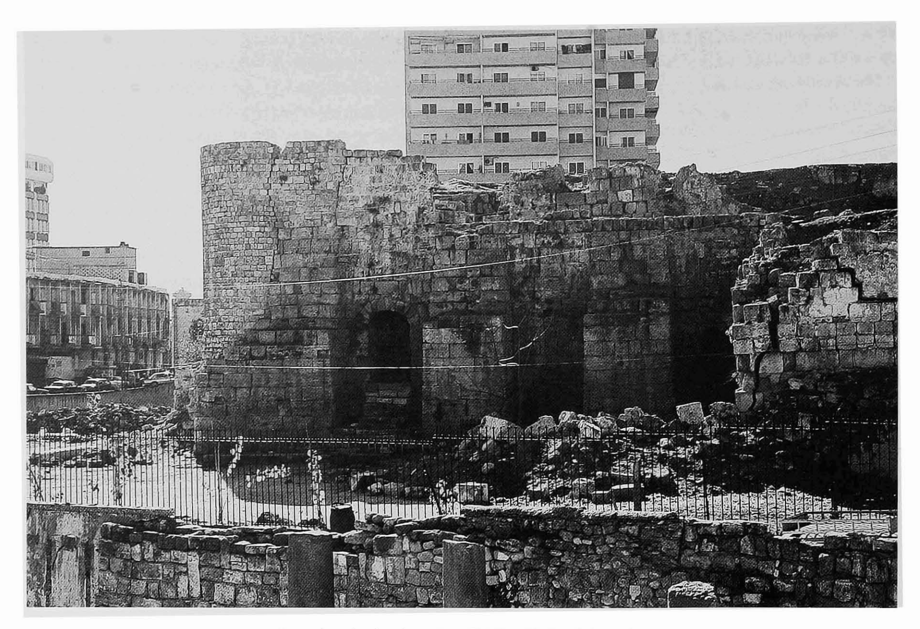


Fig. 1 The land castle of Sidon (St Louis' castle).

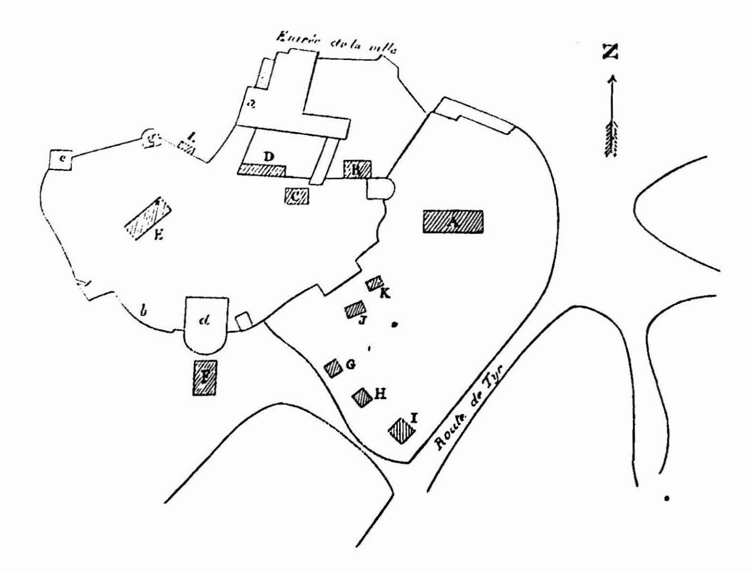


*Fig. 2 - Plan of G. Contenau's soundings in the land castle (*Syria*, 1923, fig. 1, p. 262).*

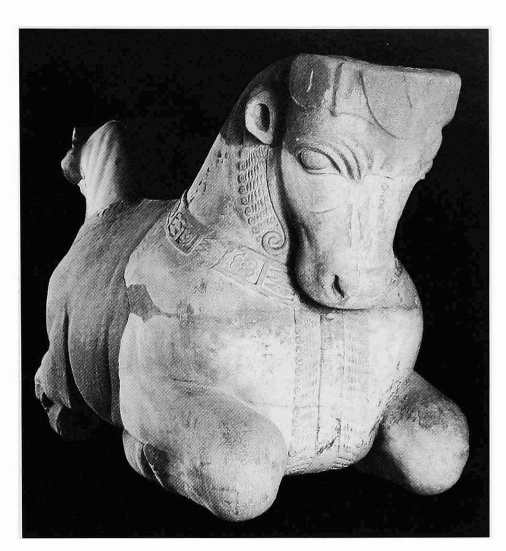


Fig. 3 - Persian bull protome capital found at College site, Beirut National Museum.



Fig. 4 - College site. Foundation pillars of the school aligned on two parallel lines.

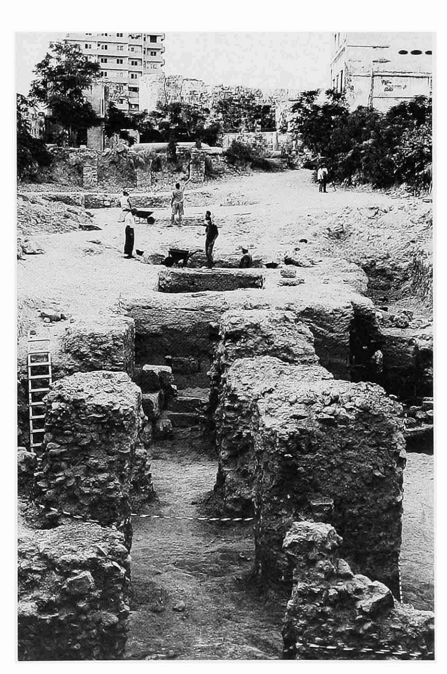
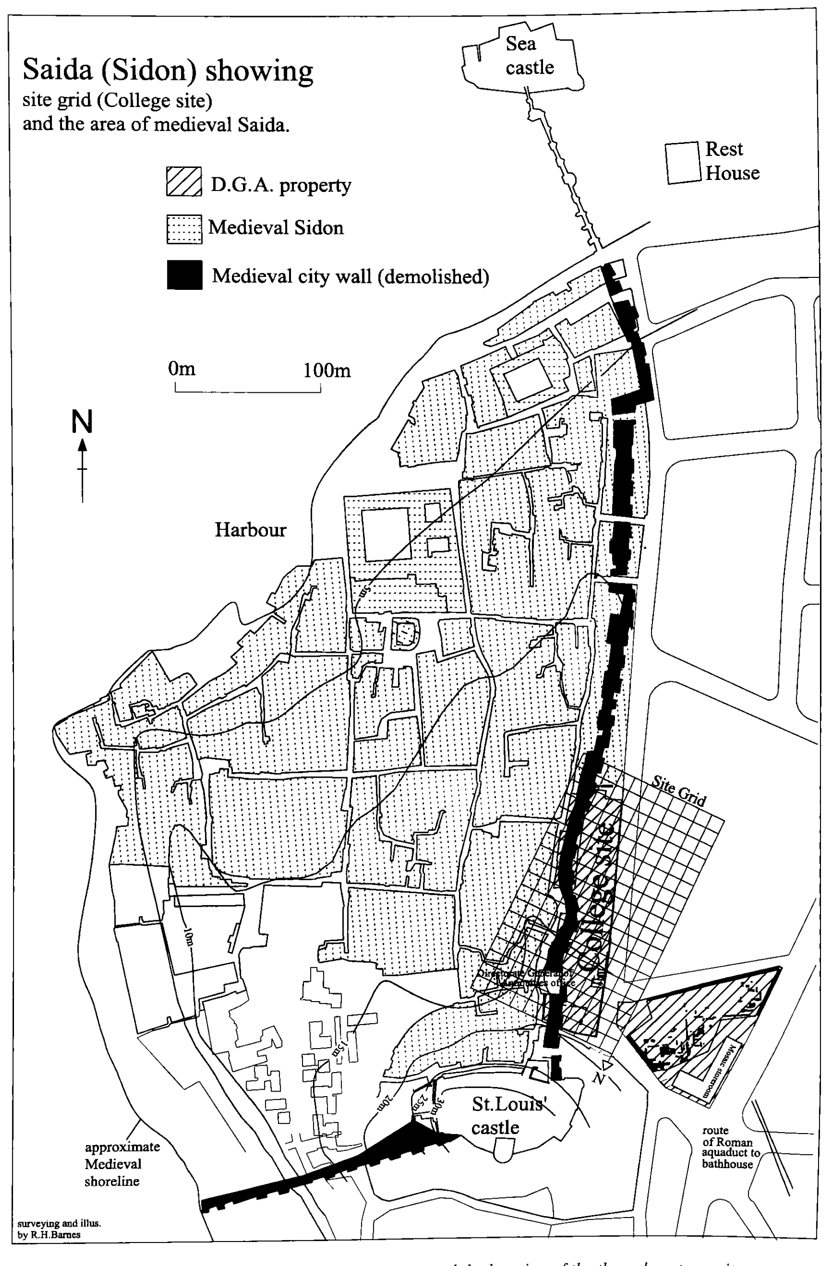
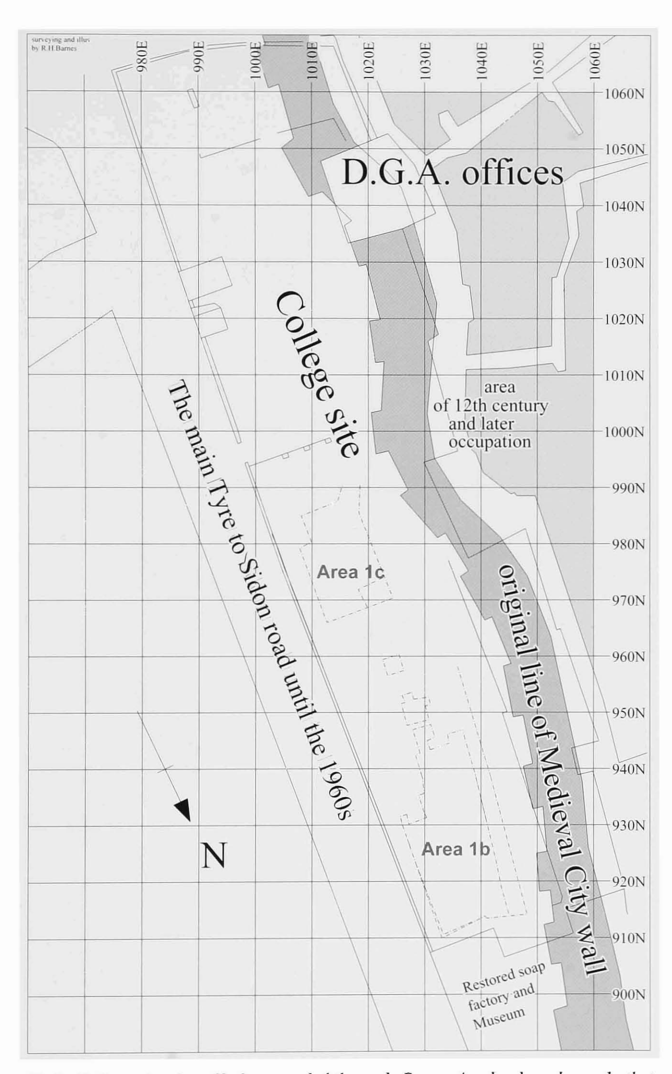


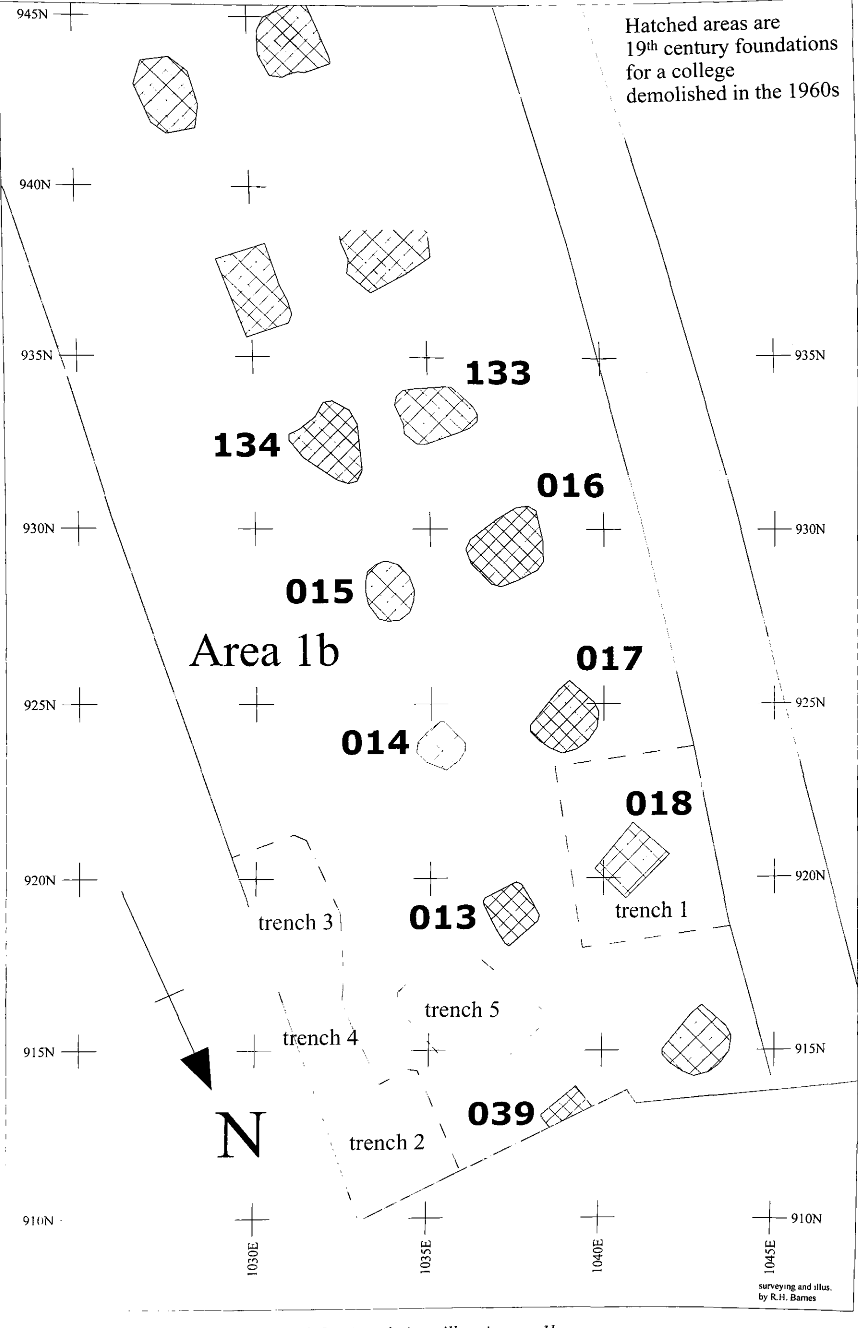
Fig. 5 - College site. Foundation pillars of the school aligned on two parallel lines.



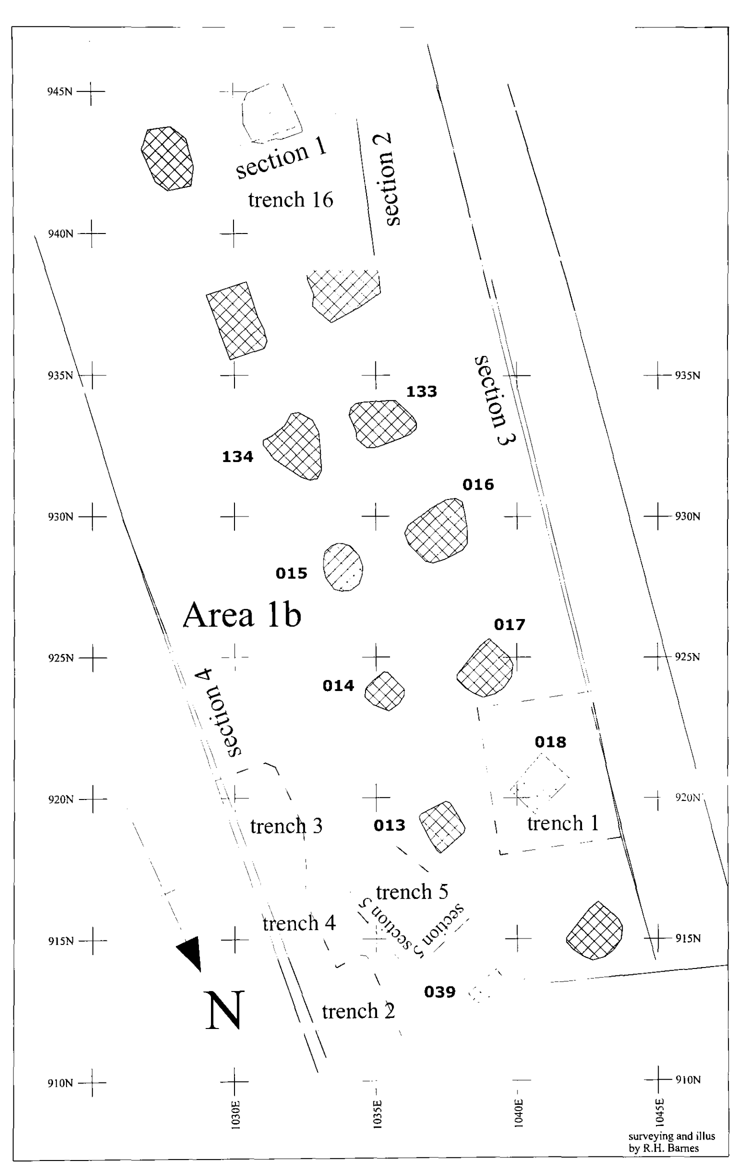
Pl. 1 - Plan showing Sidon's medieval ramparts and the location of the three downtown sites.



Pl. 2 - College site. Area 1b that revealed the early Bronze Age levels and area 1c that revealed later periods.



Pl. 3 - Foundation pillars in area 1b.



Pl. 4 - Position of sections.

Chapter I.
A Chronicle of the Excavations, 1998-2000-2001

When the first season of excavation started at Sidon in 1998 there was little information to help us decide exactly where to start digging. The Castle area was extremely disturbed and therefore unsuitable. "College site" had been investigated for the first time by Maurice Dunand in 1967[1] when he carried out soundings in the hope of finding remains of the *apadana*[2] which he thought might exist at Sidon, a theory based on the earlier finds of the double protome and column base of the Persian period. Charles Clermont-Ganneau in 1921 had thought they might have come from the *Paradeisos*.[3] Dunand's hopes of locating the *apadana* never materialized as he only discovered "*a few pieces of Roman masonry... and nothing of any further interest*" Another relevant piece of information was in Ernest Renan's 1864 publication, *Mission de Phénicie*. In his book, Renan[4] showed that Sidon's medieval wall ran north and west of the castle, through the "College site" in a steep incline down to the sea (**Pl. 1**). It was this that caused us to begin our excavations in 1998 in its protective ditch (see also below). Based on the 1864 Renan plan, the outline of the medieval wall was laid out with tape along the ground wherever it ran through Department of Antiquities property (**Pl. 2**).

1998

Area 1a: the trial trench (Fig. 1)

We began the excavations at Sidon in 1998 with a trial trench (1a) in the north west corner of "College site" The reasons for this choice were as follows:

- Sidon's medieval wall and its protective ditch runs through the site. It was thought that the most suitable area to begin excavations was in the protective ditch of the medieval wall since a ditch, being part of the defences, is generally free of construction. We hoped to find undisturbed stratified material of the earlier periods at Sidon.
- Previous foundation work for the construction of the American school in 1889 in the area had produced some promising material, though not *in situ*.[5]
- College site was less disturbed than the area of the castle.

Because of the large amount of backfill that was expected work began with the use of a mechanical excavator in the north west corner of the site. A trench (1a) measuring 2.60 m x 1.50 m was excavated as a preliminary sounding in order to provide information on the nature of the soil, the depth of archaeological deposit and the various phases of occupation. The mechanical excavator was used to a depth of 2.30 m, revealing Mamluk pottery and masonry blocks measuring 50 cm sq. lying in grey silty earth, which became more compacted around 1.60 m (**Fig. 2-3**).

Area 1b

Area 1b was then opened (approximately 400 sq. m) revealing at a depth of 2.50 m a layer of black sandy earth with Mamluk sherds and large blocks of masonry that varied in size (from 44 x 34 x 22 cm to 30 x 23 x 15 cm). The excavation also revealed a mixture of finds ranging from fragments of red marble columns (Breccia), a 20 cm high fragment of a marble statue believed to be of Hermes wearing a *chlamys* on his left shoulder, the limestone base of a column and a fragment of masonry (**Fig. 4-5**).

At approximately 9 m below the surface, undisturbed archaeological deposits were found under a 30 cm thick red and yellow deposit of burned debris (**Fig. 6**). These deposits were apparent in the north facing sections (between foundation pillars 014 and 017, and west of foundation pillar 017) and in the south facing section between foundation pillars 018 and 013. A 3 x 3 m square (trench 1) later extended to 5 x 4.5 m was laid out around foundation pillar 018 revealing *in situ* Early Bronze Age material.

1 - See p. 2-3; M. Dunand, 1967, p. 27-44.
2 - See p. 2-3.
3 - See p. 2-3.
4 - E. Renan, 1864, "plan de Saïda, Sidon"
5 - As discussed on p. 2-3.

A much later curved wall, 7.60 m long and 30 cm high with one remaining layer of large rectangular limestone blocks (77 x 46 cm and 70 x 33 cm) was cleared along the east side of the trench. It was apparent from the mortar that lay on top of the wall that at least one further course existed. The wall runs north-south curving towards the west as it runs south. The base of a column 75 cm high and 79 cm wide was found on this wall. Two pieces of this same column had been found earlier in the backfill (**Fig. 7**).

2000

Plans for the 2000 excavation included expanding area 1b to the east and to the south in order to provide more room for excavation. As in 1998 during the expansion work, a great deal of modern rubble fill was removed which also included a piece of Breccia marble column. At approximately 5 m above sea level undisturbed archaeological deposits were found below a thick yellow deposit of beach sand ranging from 1.10 m to 40 cm in thickness. This deposit was apparent in the west facing section of the trench. More foundation pillars, the remains of the school that had been built on the site, were found. They consisted of two parallel alignments of four pillars (039, 013, 014, 015) on one side and three on the other (016, 017, 018) (**Pl. 3**).

Four trenches were opened in 2000 and one baulk; trench 2, an area measuring 4.5 m x 3 m in the north east corner of area 1b and trench 3, an area of 1.50 m x 5 m against the west facing section area 1b. Trench 4 corresponds to the baulk between trenches 2 and 3. Trench 5 is an area of 3.6 m x 2.2 m situated behind pillar 013 in a cut of modern disturbance. Trench 1, an area measuring 5 m x 5 m and opened in 1998, was excavated to deeper levels. Excavation reached bedrock in all trenches.

2001

The 2001 season of excavation at College site was intended primarily to extend area 1b southward in order to reveal more of the Early Bronze Age levels which had been found in this area in 1998 and 2000. Once again much of the clearing work was concentrated in this area and aimed at exposing the Early Bronze Age levels of occupation. Additional trenches (trench 16 which encompasses trenches 9 and 10, is an area measuring 2.50 m x 3.00 m) were opened during 2001 to the south of area 1b (**Pl. 4, 14**).

Six occupational strata were identified and numbered from 1 (the earliest stratum) to 6. The section drawings of area 1b indicate, that with the possible exception of the sand layer at the end of stratum 2, there is no stratigraphic evidence of any major destruction or of a gap in occupation (**Pl. 7-9, 16**). The transition from one stratum to the next would appear to be unbroken. Such continuity in occupational strata has made it difficult at times, when architectural features are not always present, to differentiate between deposits from the same period. Floor surfaces adjoining or contemporary with the architecture of a particular stratum seem to have been built on the remains of the previous stratum. Since walls were encountered only in the corners of trenches, no rooms could at this stage be defined. A robber trench was found after the removal of stones from wall 087 in stratum 4 (**Pl. 12, Fig. 20, 21**) and was interrupted 0.70 m from its southern end. In the gap, another later wall is present to at least four further courses. A hard, compact greyish coloured clay found in this section is very different from the usual loose brown soil. Late Bronze Age pottery in this area suggests the wall in the robber trench may date to the Late Bronze Age.

The overall character was of walls and corners of buildings built in different phases on the same alignment but with some additions and changes of plan, such as one would expect of a long-lived settlement with domestic structures such as an oven, and a baked clay table. Some of the associated floors were composed of white lime plaster. A slope towards the north east from trench 3 to trench 2 was observed throughout the excavation (**Fig. 45**).

STRATUM 1 6.10 M - 6.30 M (**Pl. 6-9**)

Stratum 1 is the earliest stratum. It consists of archaeological deposits on bedrock. A dark red layer of muddy earth was reached in all trenches. The only feature representing the remains of a structure was revealed by an alignment of three holes found in the south west corner of trench 1 (**Fig. 10**) measuring 6 cm in diameter and 5 cm in depth and which may possibly have been postholes. Their close alignment however makes this interpretation rather difficult to accept. This dark red layer of soil covered the bedrock in all trenches. Pottery was found immediately on bedrock. Bedrock (**Fig. 8-9**) was uneven and pitted, most probably caused by water weathering. The rock was of sandstone identical to that found in the coring around the port of Sidon.[6] The deposits contain the earliest cultural material yet encountered at Sidon and appears to be a continuation of material from Dakerman.[7] Dakerman, 1 km south of Sidon's *tell*, was the earliest settlement in the area and was abandoned at the end of the Chalcolithic/EB I period. Nothing further was known about any later settlements beyond that until now.[8] Discoveries on the *tell* bedrock reveal a pottery sequence which appears to show that the inhabitants of Dakerman moved to the *tell* area which is much closer to the location

6 - See discussion p. 13, 57.

7 - R. SAÏDAH, 1979, p. 29-55.

8 - *Ibid.* A Late Bronze Age cemetery was found on top of the Chalcolithic houses, R. SAÏDAH, 2004, p. 11-156.

of the ancient harbour. This explains why the bay adjacent to Dakerman (Renan's[9] *port sud égyptien*) was never used as a port. The coring in this bay supports this.[10]

Stratum 1: Locus index

Locus n°	Trench	Description
083	1	Red soil over bedrock; alignment of three holes in the SW corner of the square.
118	2	Red soil over bedrock.
116	3	Red soil over bedrock.
273	5	Red soil over bedrock.

STRATUM 2 6.30 M- 6.50 M (**Pl. 7-10**)

Stratum 2 was sealed by a layer of sand between it and stratum 1. It consisted of clean deposited yellow sand 25 cm to 30 cm thick with very few sherds and it appeared in all the trenches. In trench 5 the sand layer, which was 16 cm deep on top of the red soil was isolated in the north west corner of the trench. It grew shallower as it ran south before eventually disappearing.

Stratum 2: Locus index

Locus n°	Trench	Description
078	1	Yellow beach sand.
115	2	Yellow beach sand.
114	3	Yellow beach sand.
270	5	Yellow beach sand/dark brown sand.

STRATUM 3 6.50 M-7.00 M (**Pl. 7-9, 11**)

In trenches 1, 2 and 3 a layer of brown muddy soil interspersed with patches of sand was found. This probably was a floor surface as a large number of pottery sherds were found on it. In the second preliminary report[11] we wrote that stratum 3 consisted only of a layer of brown muddy soil. At the time of the report, the excavation of trench 5 had not been completed and no architecture had been associated with this stratum.

The only architectural features from this level were found in trench 5 (**Fig. 11-13**). These consisted of:

– Wall 233 which lay in a NW/SE direction and measured 45 cm wide, 62 cm high and 3.6 m long. It had seven courses at its highest point and appeared to be constructed of quite small irregular stones measuring on average 12 cm x 6 cm x 9 cm. The stones were bonded together with a compact clay-like matrix. They were very small and the wall construction very solid. The wall sat directly on the pale sand (stratum 2). A fragmented white plaster floor which appeared in the south west corner of the trench seemed to extend over the trench but was better preserved in this corner.

– Wall 240, with one course remaining lay in a NW/SE direction and disappeared into the north east of the trench. It was 1.60 m long, 50 cm wide and 12 cm high. It was built of limestone blocks 20 cm x 15 cm x 10 cm on average.

– Wall 239 lay in a NE/SW direction and measured 35 cm wide, 25 cm high and 1.30 m long. It had two courses remaining and appeared to be constructed of irregular stones measuring 15 cm x 10 cm x 7 cm. This wall was probably the corner of a room in the south east corner of the trench.

Stratigraphic and architectural evidence indicates two phases of use within stratum 3. The evidence comes mainly from the two plaster floors found in trench 5. The ceramic material was however insufficient for separate quantitative analysis.

Stratum 3: Locus index

Locus n°	Trench	Description
068	1	Brown sandy layer. Floor surface.
104	2	Brown sandy layer. Floor surface.
108	2	Brown sandy layer with yellow patches.
112	2	Brown sandy layer with yellow patches.
103	3	Brown sandy layer.
107	3	Brown sandy layer. Floor surface.
109	3	Brown sandy layer.
233	5	NW/SE wall (**Fig. 11-13**).
234	5	After dismantling wall 120, excavating west of wall 233. Brown sandy layer. Floor.
235	5	After dismantling wall 120. Excavating east of wall 233. Brown sandy layer. Floor.
251	5	Excavating west of wall 233 under 234. Brown sandy layer.
239	5	NE/SW wall (**Fig. 11-13, 24**).
250	5	3 cm thick white lime plaster floor.
256	5	Under the plaster floor. Isolated patch of plaster floor in S/W corner about 12 cm above the sand.
262	5	Taking the level down from an area adjacent to 233.
240	5	NW/SE wall (**Fig. 13**).

9 - E. RENAN, 1864, "plan de Saïda, Sidon"
10 Ch. MORHANGE, K. ESPIC, C. DOUMET-SERHAL, M. BOURCIER & P. CARBONEL, 2003, p. 71-81.
11 - C. DOUMET-SERHAL, 2000, p. 85.

STRATUM 4 7.00 M-7.65 M (**Pl. 7-9, 12**)

– Work resumed in 2000 in trench 1 where it had been covered up at the end of the 1998 excavation. This trench was laid out around foundation pillar 018. The NW/SE 026/027 walls that emerged in 1998 were cleared on either side of the pillar (**Fig. 14**). These two walls with their similar alignment were very likely part of one same wall (total length: 4.1 m) but were built in different ways (**Fig. 14-16**): the wall to the east of the pillar measured 1.64 m long, 70 cm wide and 50 cm high. We found three courses of facing stones averaging 40 cm x 17 cm with a rubble core. The wall to the west (027) of the pillar measuring 1.56 m long, 98 cm wide and 50 cm high had four layers of small stones measuring 15 cm x 25 cm on average. The western side of this wall, had a concave buttressed shape and was possibly damaged by the hole that had been dug to drop the concrete of pillar 018. The area in the SE side of trench 1 revealed a white lime plaster floor of the same consistency and thickness that had already been found in this same trench in 1998. This floor represented the original occupational surface of the stratum. On the plaster floor was a baked clay table (44 cm x 34 cm and 14 cm high) (**Fig. 17**). A "*tannur*-like" installation was found in the west facing side of the trench (**Fig. 18**). It was in poor condition and measured 42 cm in diameter. The other side of the trench revealed *in situ* pottery (**Fig. 19**).

– Another NW/SE wall (wall 087) was found in trench 2 measuring 3.3 m long x 55 cm high. Most blocks measured 15 to 25 cm sq. This mostly single-course wall was interrupted 0.70 m from its south end. In a gap 0.50 cm wide, another later wall is present to at least four courses, which suggests some other purpose for it being there (**Fig. 20-21**) (see also p. 39, 45). The presence of pottery from the Late Bronze Age in this area is intrusive and indicates a disturbance. Use of the ceramic material from this level for statistical purposes is therefore limited.

– Another NW/SE wall, wall 125 (**Fig. 22**) was found in trench 2, parallel to wall 087, and possibly parallel to wall 120 in trench 5 heading from the southern side to the western side. It was made of rubble on its eastern edge, measured 1.10 m long, 30 cm high and 38 cm wide.

– At a lower level another NNW/SSE wall was found in trench 5 (wall 120) (**Fig. 24**) measuring 3.30 m long, 55 cm wide and 20 cm high. The NNW/SSE wall had two courses on its face with a rubble core.

Perpendicular to wall 120 was a NE/SW wall (263) (**Fig. 23-24**) built with a double course of stone. Wall 263, possibly the corner of a room in the SE corner of trench 5 measured 35 cm wide, 25 cm high and 1.30 m long. It had two courses in height and was made of irregular limestone blocks averaging 15 cm x 10 cm x 7 cm.

It suggests that walls 120, 263 and 125 were possibly the sides of a room measuring 2.75 x 2.35 m. The floor surface of this room was made of brown sandy soil with patches of white lime plaster. As already underlined for stratum 3[12] floor surfaces indicate two phases of use within this stratum. The ceramic material was however found to be similar.

– No architectural features can be assigned to this level in trench 3. No white lime plaster floor was found but the presence of a floor surface could be deduced from the number of pottery sherds.

– Excavation in trench 4 was only carried out in strata 5 and 6.

Stratum 4: Locus index

Locus n°	Trench	Description
026/027	1	NW/SE wall (**Fig. 14-16**).
044	1	Greyish brown soil. Floor surface.
054	1	Sandy clay east of wall 027.
055	1	Sandy clay west of wall 027.
057	1	Brown soil / patches of white lime plaster floor.
058	1	White lime plaster floor.
059	1	Grey sandy clay. East of wall 026/027.
066	1	Dismantling wall 026.
067	1	Dismantling wall 027.
087	2	Wall NW/SE (**Fig. 20-21**).
088	2	Brown sandy soil west of wall 087. Mixed depodit EB/LB.
089	2	Brown sandy soil east of wall 087. Mixed depodit EB/LB.
096	2	Brown sandy soil. Mixed depodit EB/LB.
098	2	Brown sandy soil. Mixed depodit EB/LB.
099	2	Brown sandy soil. Mixed depodit EB/LB.
125	2	Wall NW/SE in west facing section (**Fig. 22**).
085	3	Black muddy and sticky soil. Floor surface.
090	3	Black muddy soil.
094	3	Brown sandy soil.
117	5	Brown sand.
119	5	Brown sand. Floor surface.
120	5	Wall NNW/SSE (**Fig. 23-24**).
121	5	Brown sand in NE corner of trench.

12 - See p. 13.

Locus n°	Trench	Description
122	5	Excavating the rest of the area outside N/E corner of trench.
124	5	Brown sandy muddy soil.
125	5	Brown sandy soil.
126	5	Brown sandy soil.
127	5	Brown sandy soil.
131	5	Cleaning up the trench from 2000 excavation.
263	5	NE/SW wall (**Fig. 23-24**).

STRATUM 5 7.65 M- 8.40 M (**Pl. 7-9, 13**).

– A very dense brown silty floor mottled with red sand and with large patches of burned soil and a large amount of *in situ* pottery was discovered in trench 1. The area facing the NW section of pillar 018 revealed another white lime plaster floor. The remains of a plaster basin was associated with this hard-packed plaster floor (**Fig. 25-26**). Next to the plaster basin was a square area of burnt black earth part of which also appeared over another small group of stones in the basin. The other side of the pillar was also cleared revealing *in situ* pottery (**Fig. 27**).

– In trench 3, the remains of a NE/SW wall (wall 070) (**Fig. 28, 32, 33**) was found measuring 3.2 m long, 85 cm wide in the NE corner at the starting point and ending in a double row of small stones measuring 38 cm wide. The wall, 30 cm high, was made of limestone blocks generally rounded. There was no sign of any dressing. Another wall 084, was discovered in the south end of the trench 3 (**Pl. 13**). Only the eastern face could be seen (as the other face was buried in the section). It measured 3.76 m long, 40 cm high and 76 cm wide and was made of limestone blocks varying in size between 25 and 50 cm sq (see below wall 100). On the floor, sherds were laid one adjacent to the other on a 10 cm bed of small seashells and yellow sand, forming a semi-circular pattern. Another area but without the seashells was found in the south end of the trench at a lower level (**Fig. 29-31**). The soil on this floor was brown and very sticky.

– In trench 4 at the same level as the NE/SW wall 070 in trench 3, the excavation revealed a NW/SE wall (wall 091) (**Fig. 33**). This was 2.14 m long and 82 cm wide narrowing to 42 cm and 30 cm high. It was neatly placed and consisted of a double row of stones measuring up to 30 sq. cm with a triangular addition of smaller stones added to the southern side of the NW end in a triangular pattern.

– A N/NW wall (wall 100) (**Fig 34**) measuring 3.60 m long, 24 cm wide and 20 cm high was found in trench 5. This wall is different from the others discovered on the site. It was built with two rows of small stones with rubble in between. It continues in trench 3 (wall 084) and has a total length of 9.3 m. The associated floor surface was brown dense sand.

– In trench 2 the level consists of deposits of brown compact clay interspersed with layers of yellow sand. No architectural features were discovered (see p. 14).

Stratum 5: Locus index

Locus n°	Trench	Description
020	1	Black compact soil with patches of white lime plaster floor.
022	1	White lime plaster floor.
024	1	Yellow sand. Grey and white pebble floor. *in situ* pottery (**Fig. 27**).
025	1	Yellow sand – black sticky soil.
028	1	NW/SE alignment of stones on SE side of pillar 018.
030	1	Plaster basin (**Fig. 25-26**).
056	2	Pale fine sandy soil with darker brown earth.
062	2	NW/SE alignment of stones. Mixed deposit EB/LB (see p. 14).
063	2	Light brown sand NW side of stones 062.
064	2	Light brown sand SW side of stones 062.
074	2	Light brown sand. Floor.
077	2	Brown soil with patches of yellow sand.
080	2	Brown soil with patches of yellow sand. Very similar to 074-077.
086	2	Brown soil with patches of yellow sand.
060	3	Layer below wall 050. Patches of ash, charcoal interspersed with veins of sand. Sticky grey clay.
065	3	Sticky grey clay. Large number of sherds from central area and south end of the trench.
069	3	Sandy patch in a semi-circular pattern with sherds and shells (**Fig. 29-30**).
070	3	NE/SW wall (**Fig. 28, 32, 33**).
071	3	Dark black soil with sticky clay-like consistency near south-facing side of wall 070.
072	3	North-facing side of wall 070.
073	3	South end of trench 3 separated from the rest of the trench by an alignment of large stones and a few smaller ones.

Locus n°	Trench	Description
075	3	Sticky brown soil. Floor.
079	3	Sandy patch in south end of trench with sherds in a square pattern (**Fig. 31**).
084	3	NW/SE wall at south end of trench (**Pl. 13**).
091	4	NW/SE wall (**Fig. 33**).
092	4	Area between 091 and 070. Brown sandy floor.
097	4	North of wall 091. Brown sand.
100	5	NNW wall (**Fig. 34**).
101	5	East of wall 100. Brown dense sandy floor.
102	5	West of wall 102. Brown dense sandy floor.
105	5	Brown sandy soil. Limestone stones 40 cm diam., circular in shape.
106	5	Large patches of yellow sand and brown soil.
110	5	Patches of yellow sand and brown soil. NE side of wall 100.
111	5	Brown sand SW side of wall 100.
113	5	Taking wall 100 down and levelling the trench.

STRATUM 6 8.40 M - 9.00 M, THE LATEST LEVEL (**Pl. 14-16**)

– A collection of fallen stones and a door socket (**Pl. 173a : 10**) were found NW/SE of trench 1 with broken pottery of the Early Bronze Age *in situ* next to the stones (**Fig. 35**). These were on a black silty floor of a sticky consistency.

– A NW/SE wall (wall 048) was found in the SW corner of trench 2 (**Fig. 36**). The wall was double faced, loosely built, with a rubble core. Limestone blocks of the outer faces, around 40 sq. cm, were not dressed but were chosen for their regular flat surface. This wall continued in trench 4, (wall 081) measuring 4.3 m long,[13] 62 cm wide and 30 cm high (**Fig. 39**). A large amount of *in situ* pottery and an abundant variety of different sized sherds, shells and snail shells were found in the SW corner of trench 2 (**Fig. 37-38**).

– In trench 3 a NE/SW wall (wall 050) (**Fig. 40**) was found measuring 1.10 m long and 90 cm wide gradually widening to 60 cm at its end. It was 30 cm high. The wall, roughly finished, was made of limestone and of some sandstone blocks measuring around 35cm sq. Many small rubble fragments formed the core. The layer below the wall, made of dark black clay, was mixed with patches of ashy charcoal, interspersed with veins of sand. This wall was probably the corner of a room. Concentrated deposits of pottery were found resting on the floor surface (**Fig. 41**).

– The excavation of trench 16 revealed a brown very compact soil. This was interspersed with large patches of burned blackened soil which can be assigned to the latest phase of the Early Bronze Age (EB III B). A domestic installation (**Fig. 42**) was found consisting of:

A basalt basin 315 (**Fig. 42-43**); square at its northern end and more circular at its southern end. It was 57 cm long, 37 cm wide and 4 cm high. It had a fairly regular cut and a flat base.

A limestone quern 316, in a distinctive curved shape with rounded outer edges. It measured 70 cm long, 41 cm wide and 10 cm high.

A basalt mortar 314. This is a triangular stone, 18 cm deep and 16 cm wide, set in position in the ground. The inside was rounded off or smoothed down from use. The inside of the mortar tapered in to the base suggesting that a pointed object was used for grinding. The inner surface was very highly polished through use. It is almost perfectly round and was full of blackened ashy soil.

Several slabs of large worked stones were found adjacent to the quern. These measured 40 cm x 30 cm and 35 cm x 22 cm and 40 cm x 30 cm and would suggest another working floor especially with the abundance of charcoal and ashy soil. To the west, we found two courses of a wall running NE/SW (267/311) were found. It measured 1.07 m wide, 95 cm high and 3.05 m long. At least two courses existed with a face on the northern side with rubble fill. Some stones had a reddish colour and may have been burned. Built into the wall was part of a quern. A triangular table-like slab (**Fig. 44**) lay on top and was possibly used as a work surface with a large grinding area 1 m long, 70 cm wide and 14 cm high. It was shaped as if it were part of something bigger. This slab seems to join a smaller piece fitted to it forming a groove or channel. Adjacent to the slab was a rectangular block, 90 cm long, 35 cm wide and 10 cm high which may have been a step leading to the triangular table. At roughly the same level in the southwestern corner, part of a circular stone slab was found in the baulk. It measured 70 cm in diameter and was 15 cm thick and emerged from the eastern section of the trench. This slab must have also been part of the domestic installation.

13 - Total length in trench 2 and 4.

Stratum 6: Locus index

Locus n°	Trench	Description
006	1	Black silty clay soil.
007	1	Compact black silty clay floor.
008	1	Compact black silty clay floor.
011	1	Compact black silty clay floor.
043	2	1st 20 cm spit from surface. Brown sandy soil.
047	2	East of wall 048. Brown sandy floor.
048	2	Wall NW/SE (**Fig. 36**).
049	2	Area west of wall 048. Brown sandy floor, *in situ* pottery.
052	2	Area east of wall 048 under 047. Brown sandy soil. Floor.
045	3	1st 20 cm spit from surface.
046	3	2nd 20 cm spit from surface. Floor level with *in situ* pottery (**Fig. 37-38**).
050	3	NE/SW wall (**Fig. 40**).
051	3	Area north of wall 050. Very compacted brown floor.
053	3	Area south of wall 050. Very compacted brown floor.
076	4	1st 30 cm spit from surface. Brown sandy soil.
081	4	Wall NW/SE continuation of wall 048 (**Fig. 39**).

Locus n°	Trench	Description
082	4	SW facing side of wall 081. Brown sandy floor.
038	5	1st 20 cm spit from surface. Excavating under a rubbish pit.
093	5	2nd 20 cm spit from surface. Brown sandy floor with Early Bronze Age sherds.
209 210 218	9	Digging beneath Middle Bronze Age (burial 5). Black sticky compact soil.
156 165	10	Black sticky compact soil.
175 181	10	Black burned layer, black sticky compact soil.
185	10	Black burned layer, black sticky compact soil.
186	10	Black burned layer, black sticky compact soil.
265 276 287	16	Domestic installation with the same black sticky, very compact soil (**Pl. 14**).
311 267	16	NE/SW wall (**Pl. 14**).

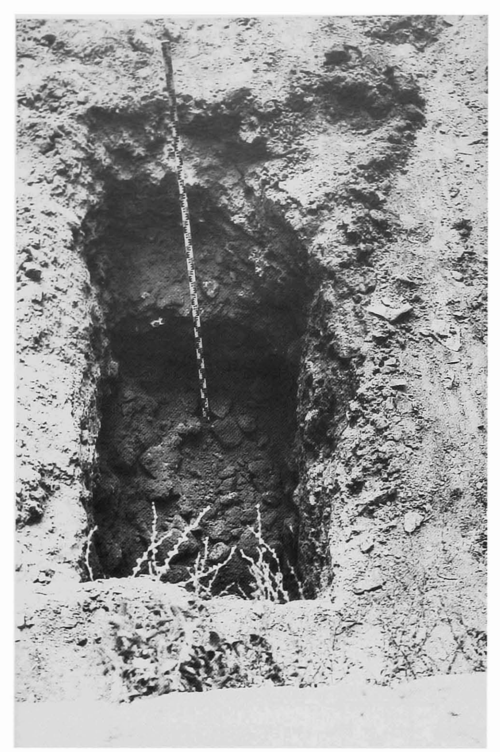


Fig. 1 - Trial trench 1a in the NW corner of College site.



Fig. 2 - Mechanical excavator to remove the large amount of rubble.

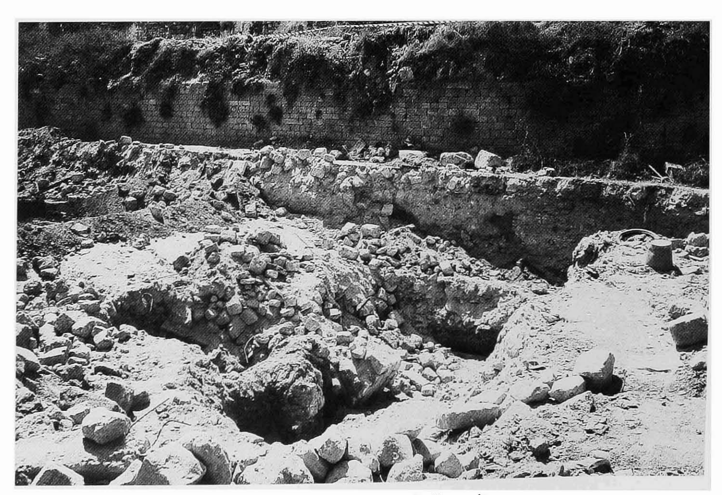
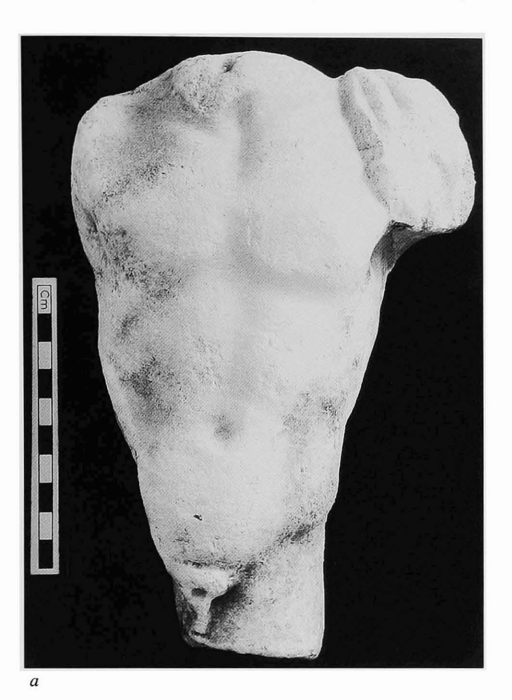
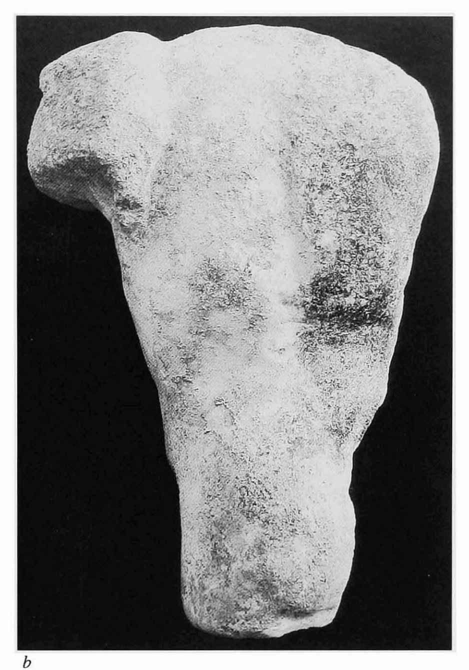


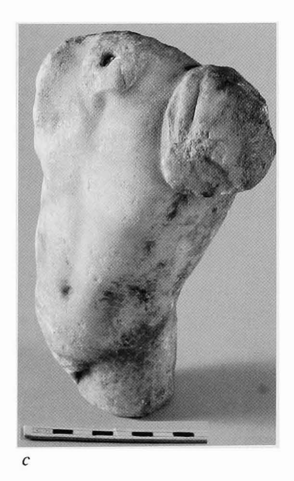
Fig. 3 - Rubble fill from College site.



a



b



c

Fig. 4 (a, b, c) - Statue probably of Hermes wearing a chlamys *on his left shoulder.*



Fig. 5 - Base of a column from rubble fill.

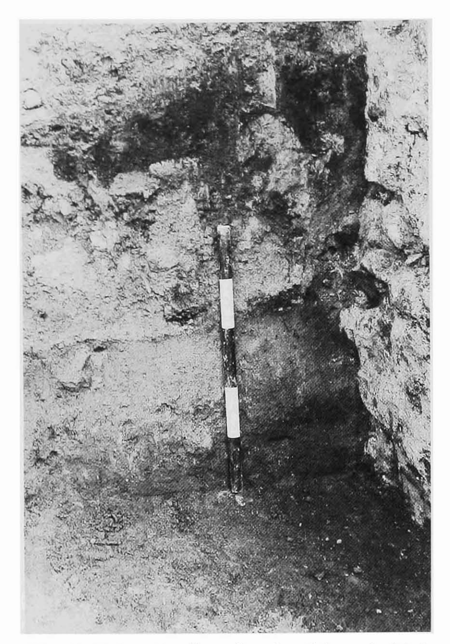


Fig. 6 - Red and yellow deposit of burned debris between pillars 013 and 018.



Fig. 7 - Curved wall belonging to a later period and base of a column.



Fig. 8 - Bedrock (stratum 1) in trench 2 with a layer of sand (stratum 2) visible in the south facing section.



Fig. 9 - Bedrock in trench 1 and foundation pillar 018 sitting on the bedrock.

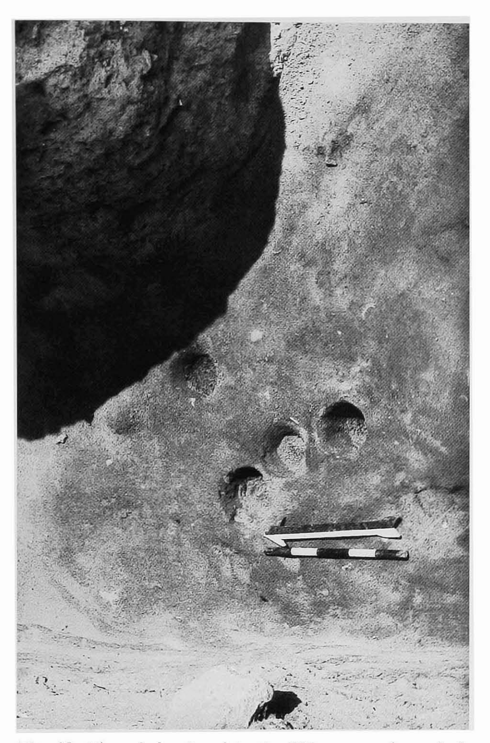


Fig. 10 - Three holes found in the SW corner of trench 1, stratum 1.



Fig. 11 - Trench 5, stratum 3. Wall 233 in a NW/SE direction; wall 239 in a NE/SW direction.

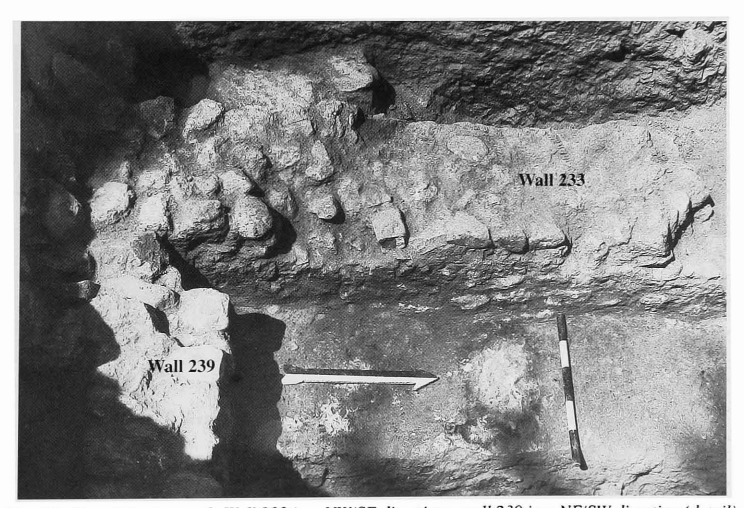


Fig. 12 - Trench 5, stratum 3. Wall 233 in a NW/SE direction; wall 239 in a NE/SW direction (detail).

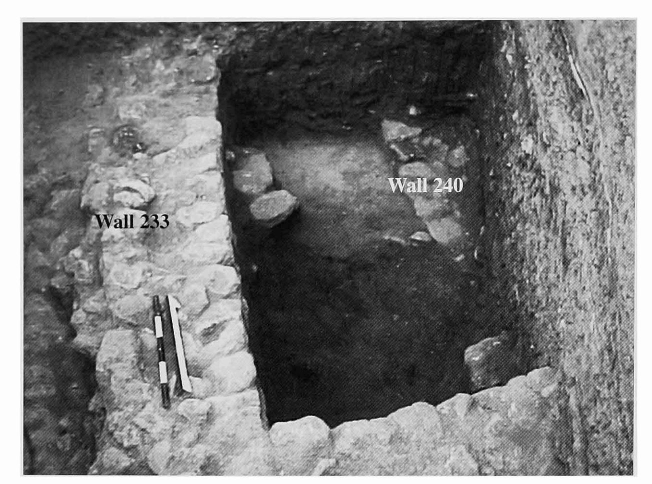


Fig. 13 - Trench 5, stratum 3. Wall 233 in a NW/SE direction; wall 240 in a NW/SE direction; wall 239 in a NE/SW direction.

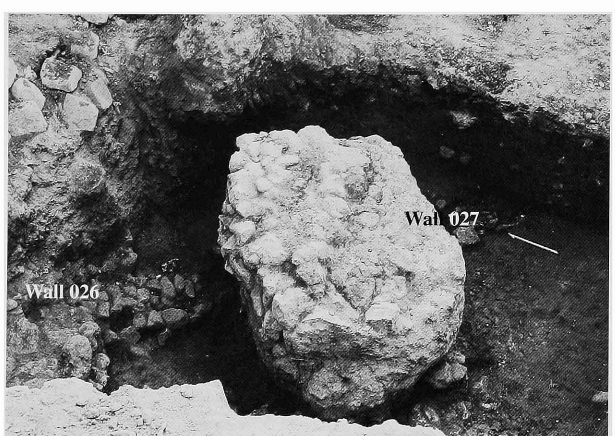


Fig. 14 - Trench 1, stratum 4. Wall 026/027 NW/SE on either side of pillar 018.



Fig. 15 - Trench 1, stratum 4. Wall 026/027 NW/SE on either side of pillar 018.

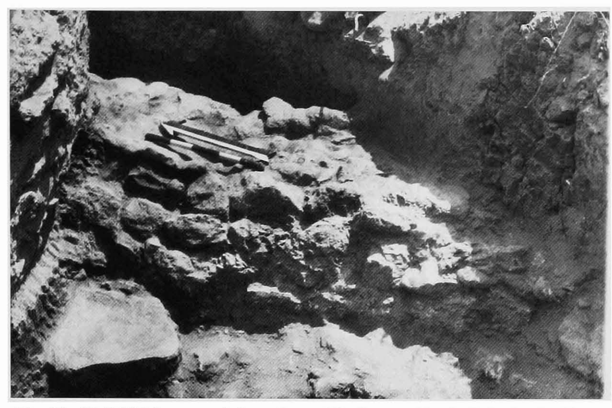


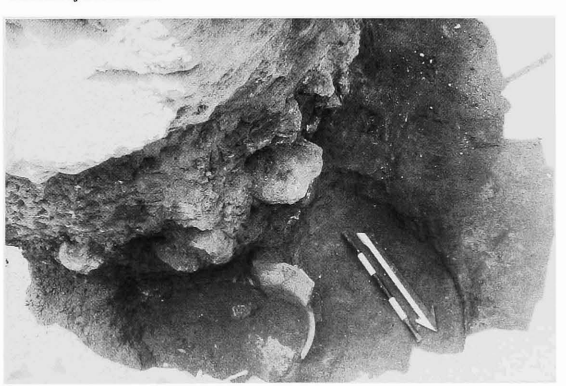
Fig. 16 - Wall 027, buttressed shaped, possibly damaged by the hole that had been dug to drop the concrete of pillar 018.



Fig. 17 - Trench 1, stratum 4. Baked clay table on a plaster floor.



Fig. 18 - Trench 1, stratum 4. A "Tannur-*like" installation in the west facing section of the trench.*



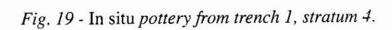


Fig. 19 - In situ *pottery from trench 1, stratum 4.*



Fig. 20 - Trench 2, stratum 4. NW/SE wall 087.



Fig. 21 - Trench 2, stratum 4. NW/SE wall 087.

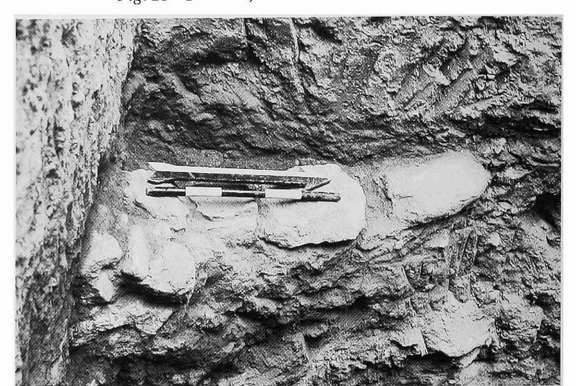


Fig. 22 - Trench 2, stratum 4. NW/SE wall 125.



Fig. 23 - Trench 5, stratum 4. NNW/SSE wall 120 and NE/SW wall 263.

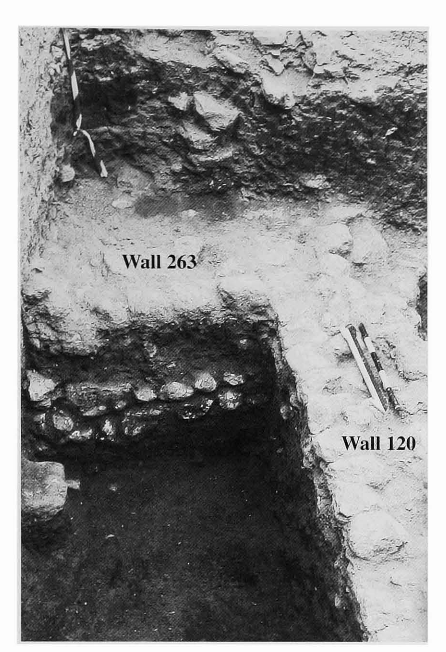


Fig. 24 - Trench 5, stratum 4. NNW/SSE wall 120 and NE/SW wall 263. Wall 239 from stratum 3 appearing underneath wall 263.



Fig. 25 - Trench 1, stratum 5. Plaster basin sitting on a white lime plaster floor.



Fig. 26 - Trench 1, stratum 5. Plaster basin sitting on a white lime plaster floor.



Fig. 27 - Trench 1, stratum 5. In situ *pottery on the floor.*

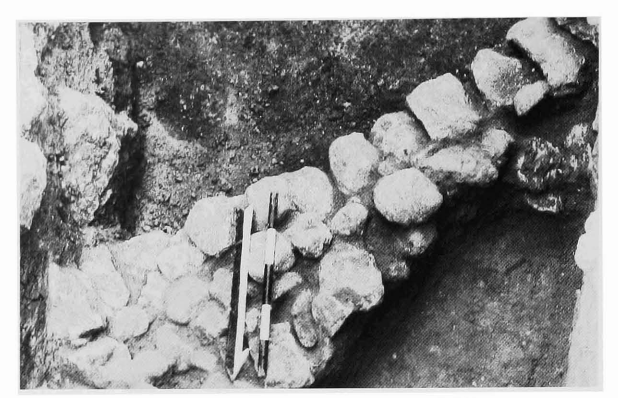


Fig. 28 - Trench 3, stratum 5. NE/SW wall 070.

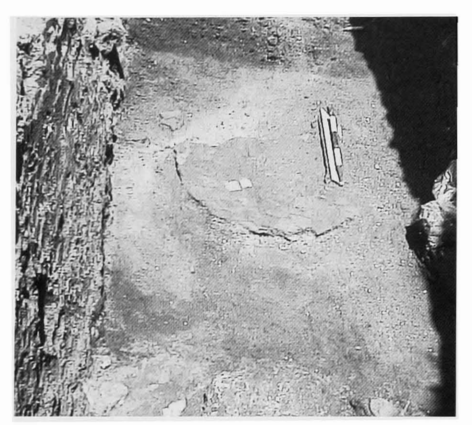


Fig. 29 - Trench 3, stratum 5. Sherds laid one adjacent to the other in a semi-circular pattern.



Fig. 30 - Trench 3, stratum 5. Sherds laid one adjacent to the other in a semi-circular pattern.

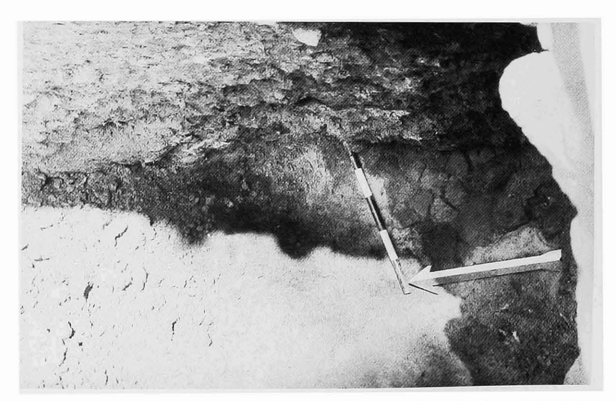


Fig. 31 - Trench 3, stratum 5. Sherds laid one adjacent to the other in a square pattern.



Fig. 32 - Trench 3, stratum 5. NE/SW wall 070.



Fig. 33 - Trench 4, stratum 5. NE/SW wall 070 and NW/SE wall 091.



Fig. 34 - Trench 5, stratum 5. NNW wall 100.



Fig. 35 - Trench 1, stratum 6. In situ *pottery.*



Fig. 37 - Trench 2, stratum 6. In situ *pottery on floor.*

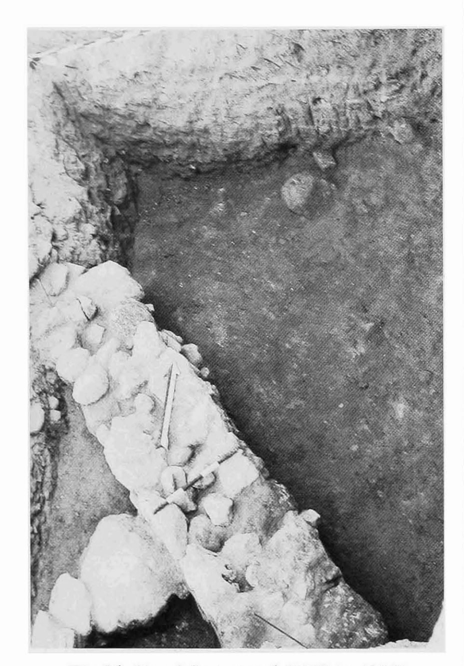


Fig. 36 - Trench 2, stratum 6. NW/SE wall 048.



Fig. 38 - Trench 2, stratum 6. In situ *pottery on floor.*



Fig. 39 - Trench 4, stratum 6. NW/SE wall 081.



Fig. 40 - Trench 3, stratum 6. NE/SW wall 050.



Fig. 41 - Trench 3, stratum 6. Pottery deposits on the floor.



Fig. 42 - Trench 16, stratum 6. Domestic installation.



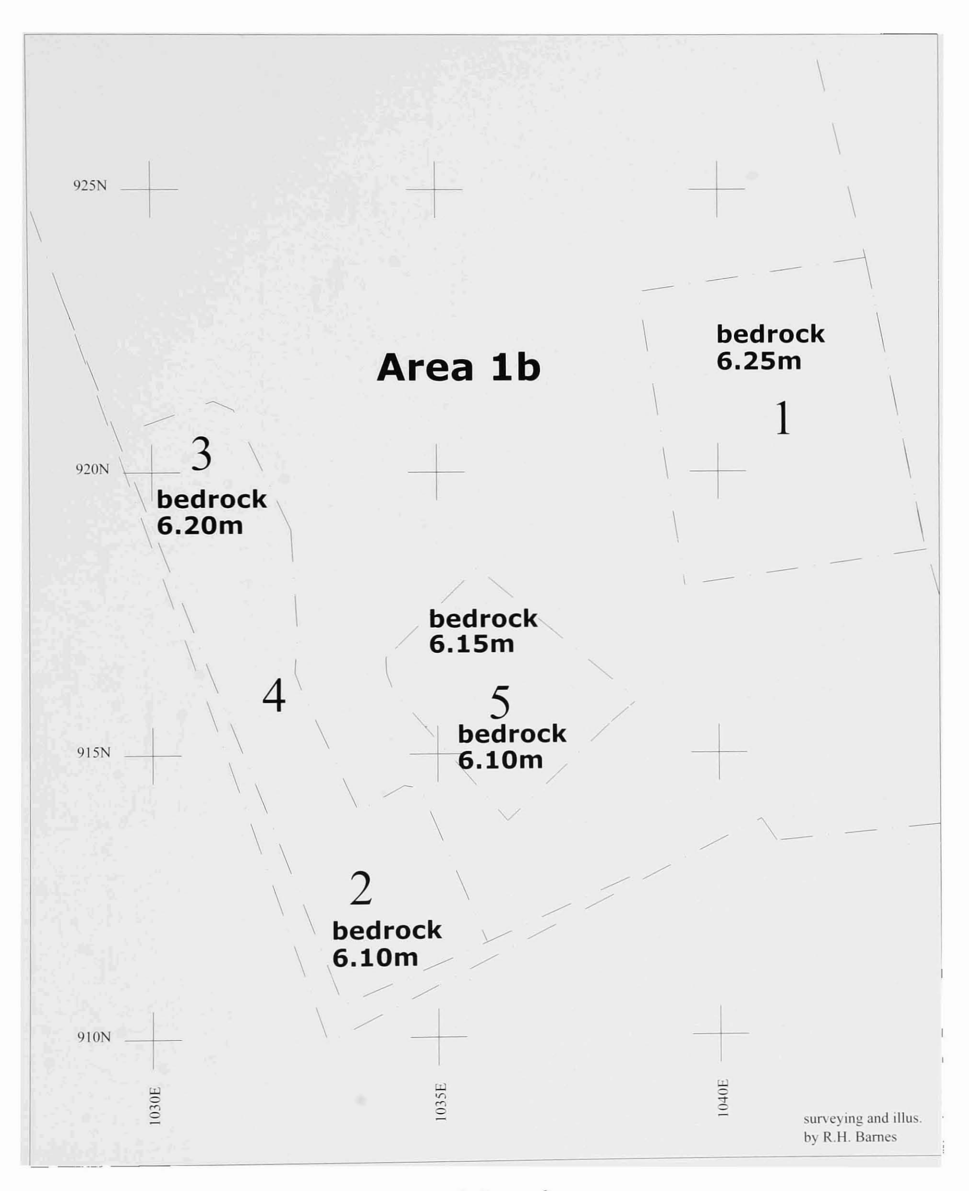
Fig. 43 - Trench 16, stratum 6. Basalt basin (315).



Fig. 44 - Trench 16, stratum 6. Triangular table-like slabs.



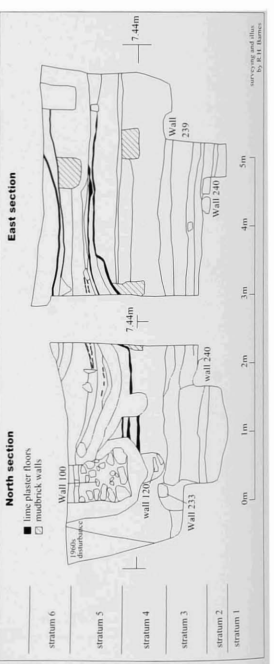
Fig. 45 - General view. Trench 2-5.



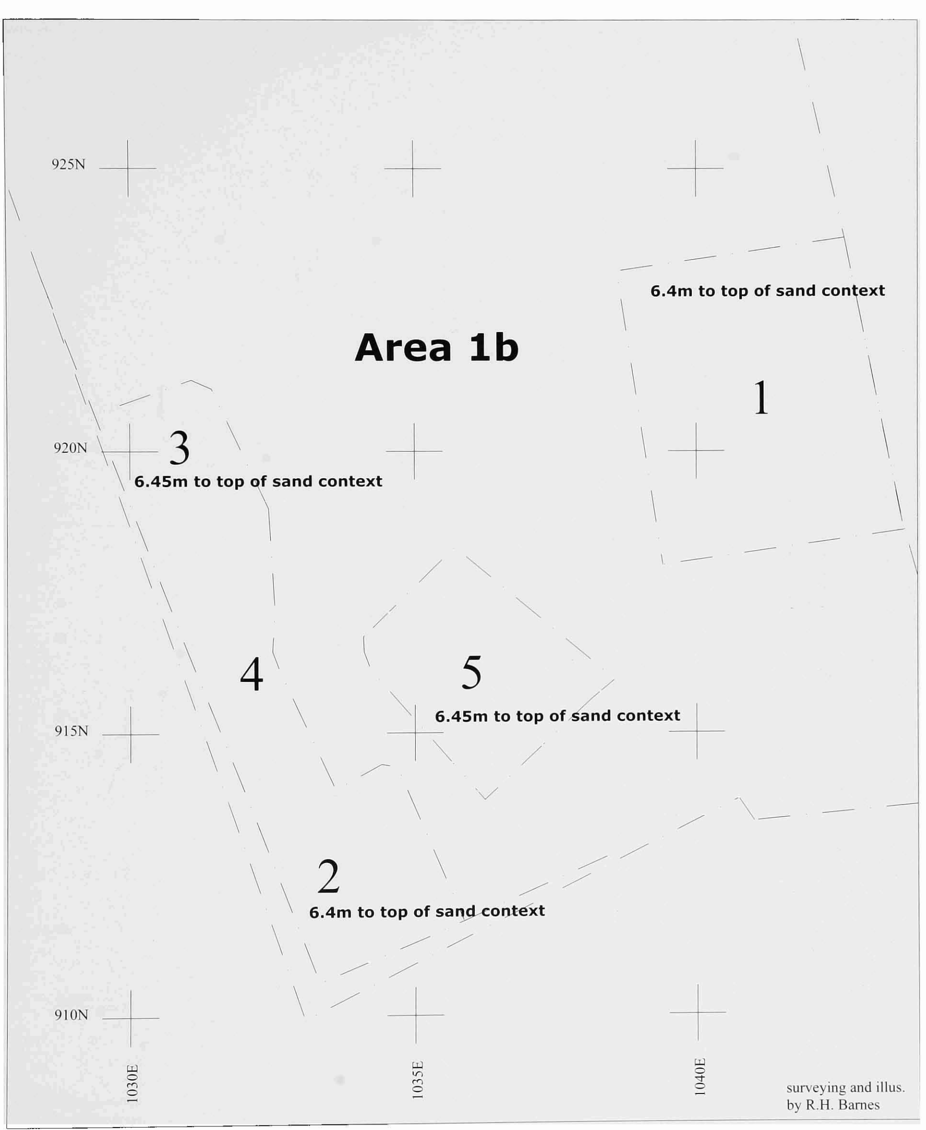
Pl. 6 - Stratum 1.

Pl. 7 - Section 4. East section of area 1b.

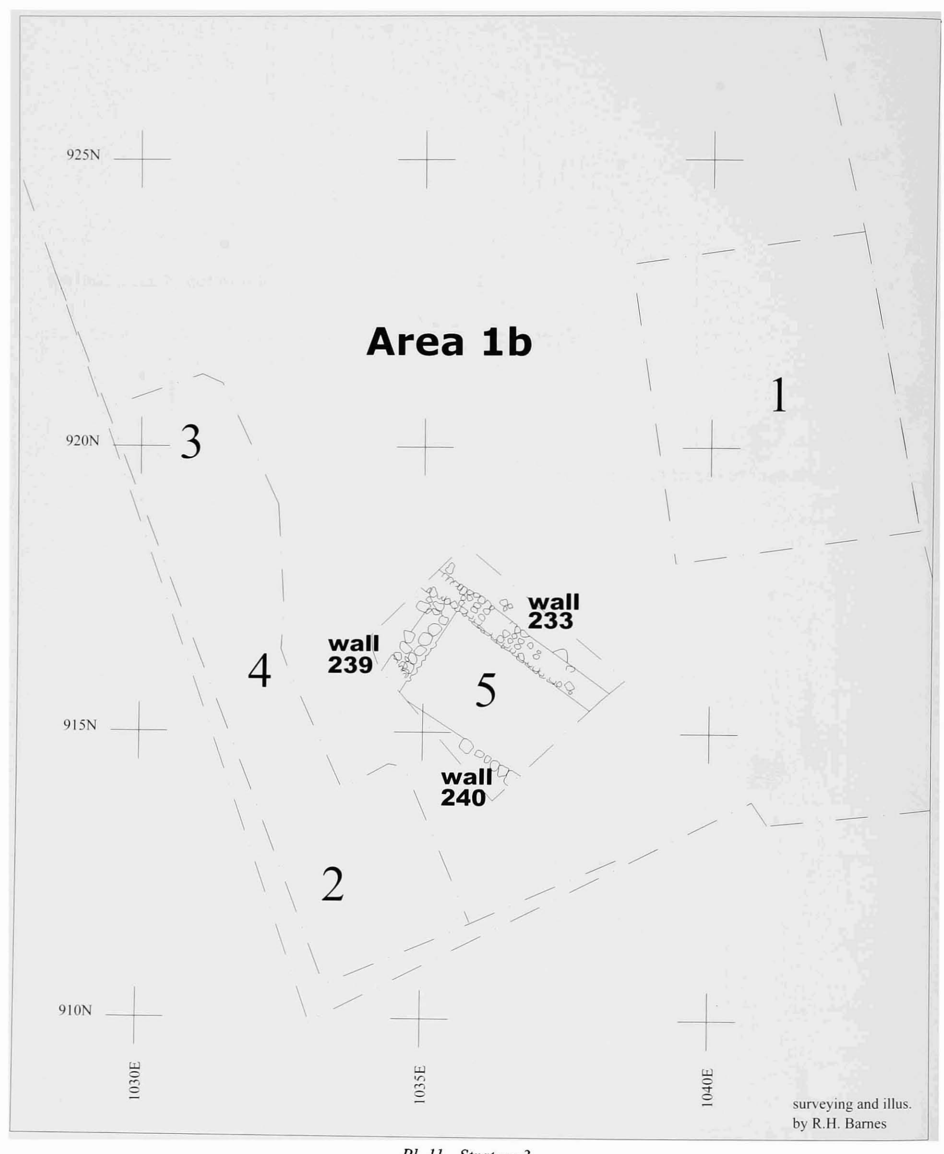
Pl. 8 - Section 3. West section of area 1b.



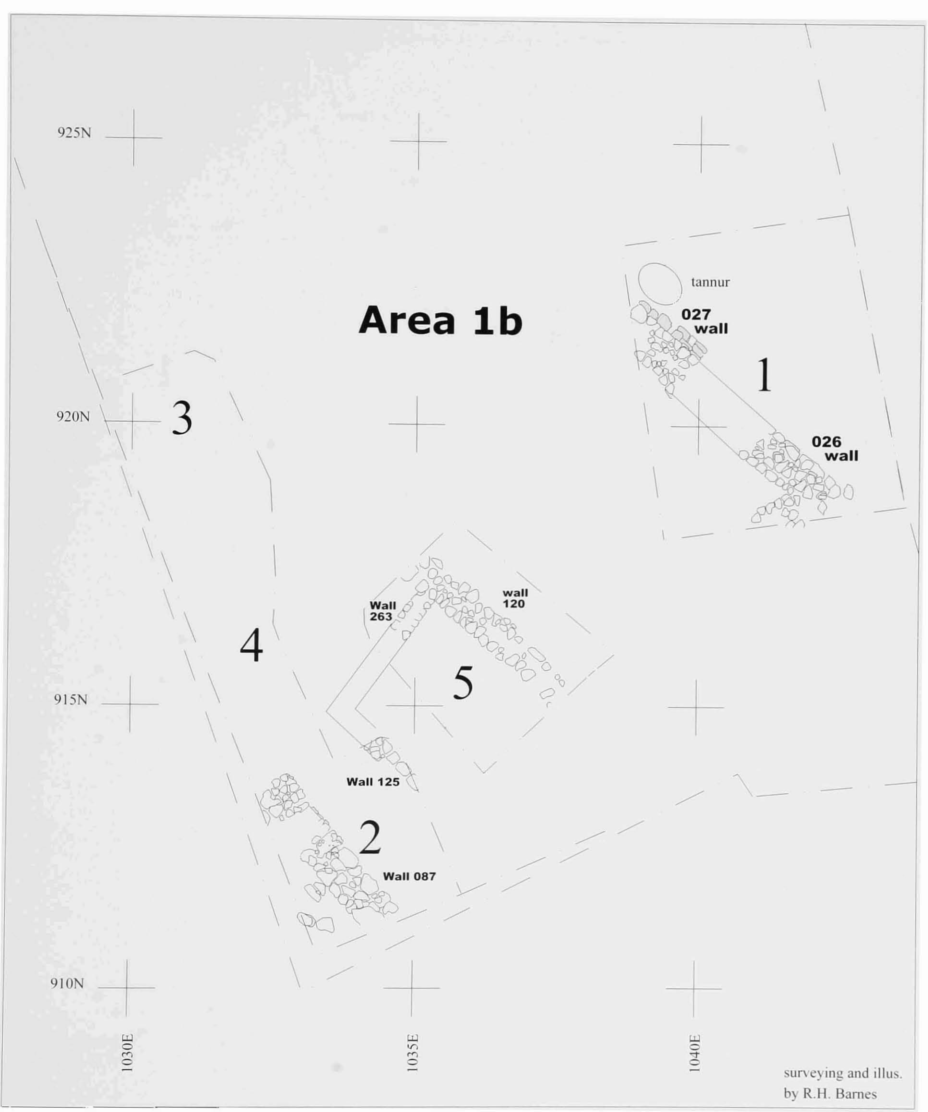
Pl. 9 - Section 5. Trench 5.



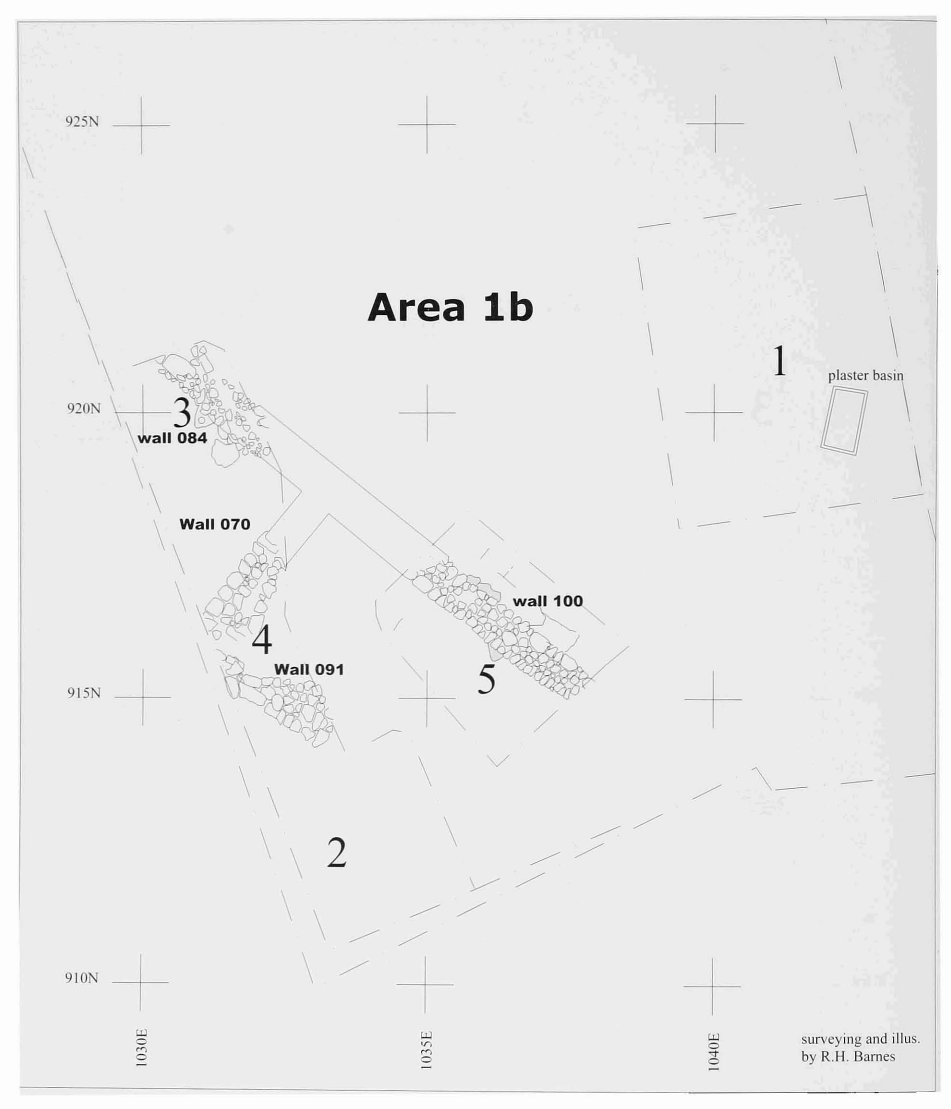
Pl. 10 - Stratum 2.



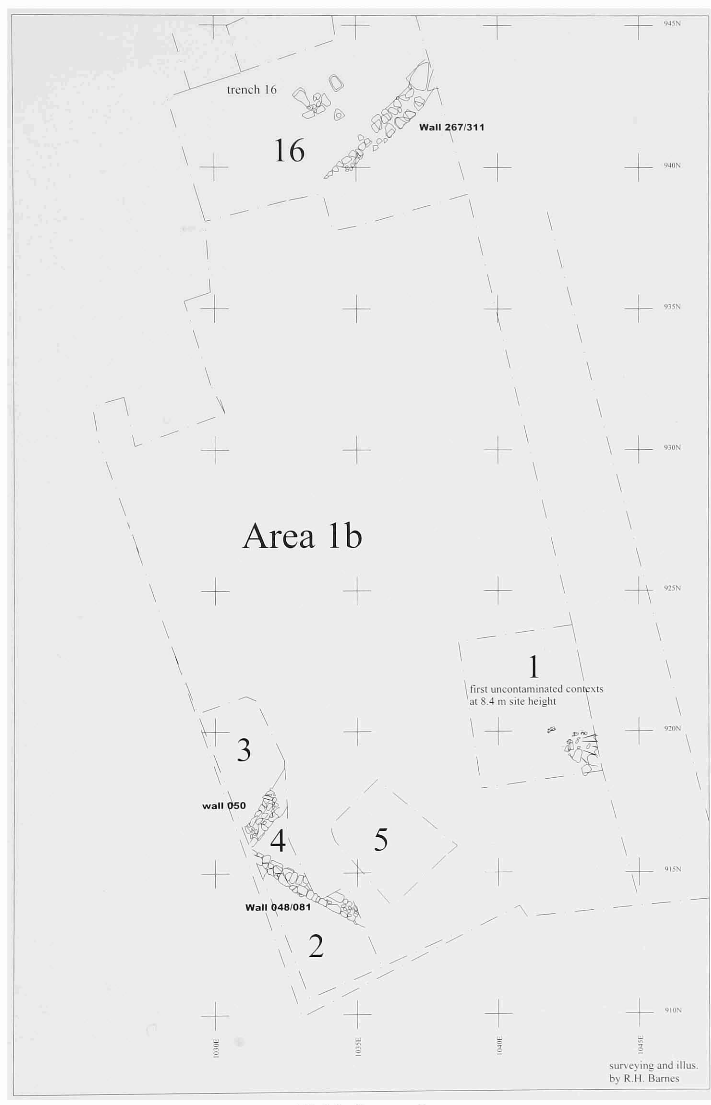
Pl. 11 - Stratum 3.



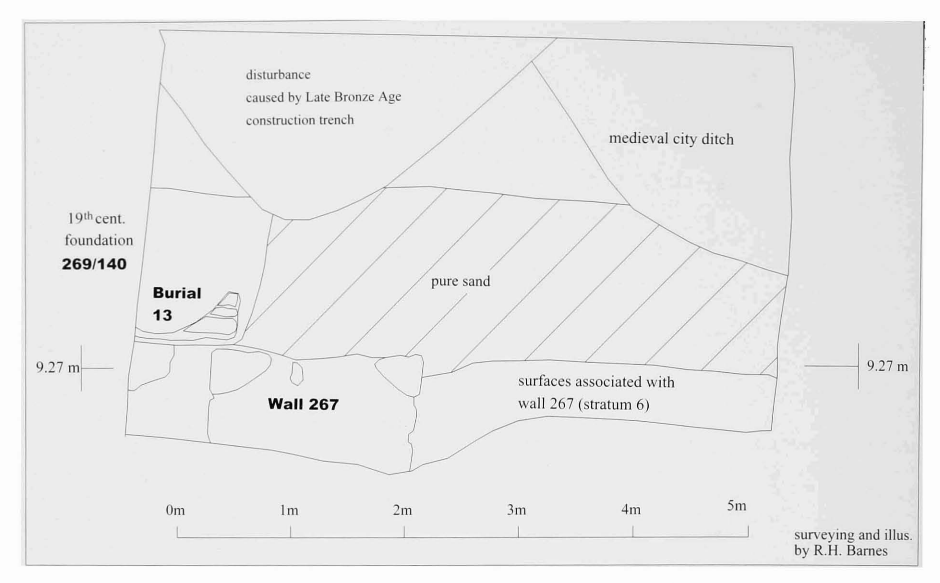
Pl. 12 - Stratum 4.



Pl. 13 - Stratum 5.



Pl. 14 - Stratum 6.



Pl. 15 - Section 2. West facing section through trench 16.

Trench 17
cobbled
layer
Pale plaster
10.56 m
fine ash
+charcoal
19th cent.
foundation
10.56 m
Fine Ash +
Charcoal
lenses
void
Burial 16
Clay with visible mudbricks (stratum 6)
Clear Sand
0m
.5m
1m
1.5m
2m
surveying and illus.
by R.H. Barnes

Pl. 16 - Section 1. South profile of trench 16.

Chapter II. The Pottery: Typology

The following discussion is based on a corpus of approximately 3240 sherds and whole vessels from the stratigraphically significant Early Bronze Age contexts at Sidon.

In keeping with the general principles of stratigraphy, the material is arranged according to strata from earliest to latest phase. Comparative analysis was undertaken to assist in its classification. The actual composition of the ware has also in many cases been an additional criterion in classification. Petrographic examination has proven that at least four of the five fabrics identified were in use from stratum 1, the earliest phase, onwards. Fabrics have been correlated with vessel shapes and decoration, and the occurrence of different fabrics in different contexts of the excavation has been assessed.[1] The pottery, within each stratum, is presented in the following order: bowls, platter/bowls, jars and jugs, hole-mouth, cooking pots, lamps, bases, handles and decorated sherds.

At this point the distinction between several sizes of bowl is based on the following: small hemispherical bowls with rim believed to range from 8 to 15 cm in diameter, medium bowls, (rim diameter: 15-28 cm), large bowls (rim diameter: 15-40 cm) and jugs & jars (rim diameter: 3-25 cm) and pithoi (rim diameter: 18-48 cm). Hemispherical bowls used as lamps are presented separately. The distinction between bowls and platter/bowls is dependent upon the depth of the vessel.[2] Cooking pot sherds, recognizable sometimes by the composition of the fabric along with the firing techniques which provide the vessel with the required refractory characteristics, have been difficult to distinguish. This was particularly true in strata 3 to 6 as the usual blackened exterior was similar to jar sherds and hole-mouth jars fired in a reduced atmosphere. Some cooking pots of stratum 4 to stratum 6 were made using fabric 3 containing calcite tempers. This fabric was also commonly used in strata 5 and 6 for the manufacture of the hole-mouth jars.[3] This group as a whole is small and most likely to be inconsistent.

We have included under the "potters mark" heading the incisions made on the vessel prior to firing.

There is a smooth continuity among ceramics in spite of the differences in architectural levels. This continuity applies both to type and fabric. Most types[4] occur over a long time span. Statistical analysis from trenches 1-3 and 5 has provided a key to distinguish patterns of distribution, decrease or increase in occurrence of vessel forms and fabrics corresponding to stratigraphic changes in the history of the site.

The excavation proved to be fairly homogeneous in terms of the spatial distribution of different pottery forms and fabrics. The only exception occurs in trench 2. Intrusive sherds of Palestinian bichrome ware with bands applied to the surface or with two vertical red wavy lines with rounded curves and used as a filling for a shoulder panel between vertical bichrome band panels,[5] as well as Cypriote monochrome ware occur alongside the Early Bronze Age material (see p. 45). This has been taken into consideration when statistical analysis has been undertaken for each level. These intrusions were found throughout the various deposits in trench 2 from stratum 4 to 6.

Terminology Problems

Interpreting ceramic data of the Levantine Early Bronze Age is complicated by the lack of a consistent use of well-defined terms to describe pottery types. This problem was recently discussed in a workshop held at Durham University.[6]

1 - D. Griffiths, 1999, p. 49-55 and in this volume p. 279; see also p. 61-63.

2 - T. Schaub, 2000, p. 446, 447, on the problem of consistent use of terms between bowls, platters and trays. It remains however difficult to use the height-to-mouth (diameter) ratio with sherds.

3 - G. Philip & D. Baird, 2000, p. 11: "the use of calcite temper to improve heat resistance in hole-mouth cooking-pots is a common feature..."

4 - See p. 58.

5 - C. Epstein, 1966, p. 77-79.

6 - G. Philip & D. Baird, 2000, p. 1, 4.

In the absence of terminological clarity and standardized descriptions for the Palestinian material, it was felt that although parallels could be drawn with the Sidon material, no existing type descriptions could reliably be used in describing the local production of southern Lebanon.

– Red slip has been used primarily to describe an extra material applied on the surface of a predominant Sidonian soft-fired and light-colored ceramic (fabric 5) found between the end of the Chalcolithic through EB II. This red slip tradition[7] termed "Abydos ware" by archaeologists and appearing mainly in central and southern Palestine during EB II and III also refers to the soft-fired red slip and burnished pottery contemporary with so-called "Metallic ware".

– Black slip is another tradition of surface decoration closely related to red slip. It uses the same type of fabric (fabric 5) found at Sidon but is not as common. It is found mainly in Chalcolithic/EB I, stratum 1, and may be related to "Palestinian Grey Burnished Ware".[8]

– The term "Combed ware" was used at Sidon for a surface decoration which was applied on a predominantly iron-rich shale containing fabric (fabric 1) or a similar more calcareous one (fabric 2) which first appeared in Chalcolithic/EB I but became predominant in EB II and III.[9] These wares, not always highly fired, are probably locally made. "Metallic Ware"[10] is characterized by high temperature fired sherds which "ping" like metal when struck. "Combed ware", which is the hallmark of EB II in northern Palestine and which occurs at Sidon in EB II and III alongside softer locally produced wares (fabric 5), is not necessarily related to the consistently high-fired "Metallic ware" production of the Hermon foothill area.

– The term "net design" relates to the Palestinian "Line Group Painted Tradition" generally associated with the EB I B cultural period, as defined by R. Amiran.[11] It "consists of straight or wavy lines, mostly composed in groups, with the pattern formed by the diagonal intersection of these groups...". Small vessels are often painted directly on the bare clay. In Sidon vessels are covered with horizontal or diagonally intersecting bands of black paint, applied directly on the vessel surface. This type of decoration as well as the net burnished design was very popular at Sidon from the end of EB II B (str. 3).

STRATUM 1 (**Pl. 1-6; p. 61**) *

Most of the pottery found in Sidon on the bedrock is remarkable for its coarseness and the poor quality of its firing. Much of it (65%)[12] is made of light-coloured clay ranging from white to beige (fabric 5). The clay is tempered with straw and grits of various sizes. Fabrics 1 and 2 account respectively for only 19% and 16% of any tempering (**p. 61**).

The pottery is arranged according to forms:

1. Bowls

The bowl is the most common form of vessel found. Larger bowls have thicker walls with sharp or rounded rims. Smaller and medium bowls have relatively thin walls, either straight or curving slightly outward. Where decoration occurs, it consists of red or black slip on the exterior as well as the interior. One bowl has incised decoration (**Pl. 2: 6**).

– **V-shaped bowls** with simple rounded or square rims. Large V-shaped bowls (**Pl. 1: 1-8**) are similar to the smaller bowls (**Pl. 2: 1-7**), in both shape and method of manufacture and are usually handmade. Bowl **Pl. 2: 5** bearing a depression or groove is, as pointed out by A. Leonard,[13] a good example of a very diagnostic 4th millennium form in Palestine. Bowls (**Pl. 1: 6-8**) have a flat-topped rim (**Pl. 2: 7**) projecting diagonally out.

– **Small to medium deep straight-sided bowls** (**Pl. 2: 8-15**), with simple rounded or pointed rims. Two bowls (**Pl. 2: 14-15**) have a depression under a slight (**Pl. 2: 14**) or pronounced (**Pl. 2: 15**) flat-topped rim. Elsewhere examples of straight-sided bowls were in EB I, str. IV at Arad and in Kenyon's Proto-Urban tombs at Jericho where the shallow hemispherical bowl types predominate at the expense of the straight-sided variety.

– **Small to medium hemispherical bowls** (**Pl. 3: 1-12**) have simple rounded or pointed rims. One bowl has a pointed rim projecting inward[14] (**Pl. 3: 8**). Only **one large hemispherical bowl** was found with simple rounded rim (**Pl. 3: 13**).

– **Platter-bowls and trays** (**Pl. 3: 14-18**). One small tray has a very short upper wall (**Pl. 3: 14**). Platter-bowls have an upper wall that can be high (**Pl. 3: 15, 16, 18**) or short (**Pl. 3: 17**). The rim can be pointed, straight (**Pl. 3: 15-16**) with a slight curve (**Pl. 3: 17**) or projecting inward with

7 - See p. 41, 42, 45, 47, 51, 57.
8 - G. Philip & D. Baird, 2000, p. 1, 4.
9 - See p. 65.
10 - R. Greenberg & N. Porat, 1996, p. 5-24; P. de Miroschedji, 2000, p. 321: "... 'Metallic Ware' is in need of redefinition following the work of Greenberg and Porat..."
11 - R. Amiran, 1969, p. 49.
12 - Fabrics have been described only on diagnostic sherds illustrated on pl. 1-166 not that of the bases and handles included in the percentage count of the total diagnostic sherds.
13 - A. Leonard, 1983, p. 40-42, "a good example of a very diagnostic 4th millennium form in Palestine, but whose importance has been overlooked because of its absence in the better studied funerary deposits of the period"
14 - K. M. Kenyon & T. A. Holland, 1982, fig. 36, 14, 16 Proto-Urban period. On Kenyon's Proto-Urban period see J. W. Hanbury-Tenison, 1986, p. 16; See also Y. Garfinkel, 1999a.
*** See plates chp. iv.**

a groove on the exterior (**Pl. 3: 18**). Some platters have a red or black slip applied inside and outside.

2. Jars and jugs

Jars can be divided into two groups:

– **Low-necked jars** with flaring squared rim (**Pl. 4: 1**), collared (**Pl. 4: 2**) and everted (**Pl. 4: 3**)[15] or T-shaped and curved diagonally out (**Pl. 4: 4**).

– **Hole-mouth jars** with square cut rims (**Pl. 4: 5-7**). The square-rim hole-mouth jar is very similar to a family of rim forms found at Jericho,[16] Arad,[17] Ai[18] and Tell el-Farah north.[19]

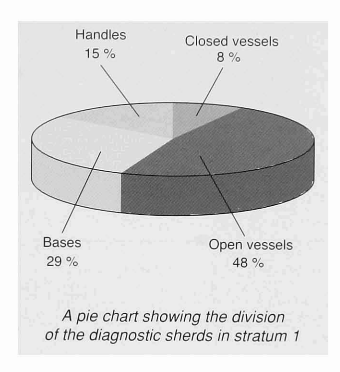
3. Bases

Bases can be divided into four groups: one pedestal bowl base (**Pl. 6: 2**), two short and wide stump bases[20] (**Pl. 6: 3-4**) similar examples of which were found at Byblos and dated by M. Dunand to 3200 BC[21] as well as flat bases with a diameter between 4 and 19 cm (**Pl. 5: 1-20**). In the case of flat bases, some vessel walls meet the base at a smooth angle (**Pl. 5: 12-19**). One flat string-cut base (**Pl. 5: 21**) suggests the use of the wheel or a turntable.

The appearance of the stump base in Palestine is still a matter of discussion. Hennessy[22] suggests that this form may well have an earlier history in Palestine perhaps even appearing in EB I or early EB II. The appearance of stump base jugs in stages V-IV at Megiddo is open to some doubt, as the stratification of the site is unclear. One base shows clear traces of having been turned on the wheel.

Diagnostic sherds

Bowls	36
Platter bowls/Trays	05
Jars and Jugs	04
Hole-mouth	03
Bases	25
Handles	13
Total	86



A pie chart showing the division of the diagnostic sherds in stratum 1

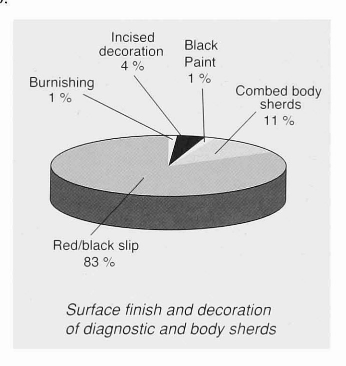
4. Surface finishing techniques

A variety of decorative techniques appear:

Red and black slip are the most common surface finish. V-shaped bowls are commonly covered by a slip on the exterior and occasionally on the interior. This slip is only occasionally burnished.

Three sherds are incised (**Pl. 6: 10-12**), one is also covered by a red slip (**Pl. 6: 10**). Black paint appears on two sherds (**Pl. 6: 13-14**).

Twelve sherds (**Pl. 6: 7-9**) had combed decoration. This technique was to become the most popular method of decoration at Sidon and was first used around 2900 BC (EB II).[23] One sherd (**Pl. 6: 15**) has a rectangular shape. It is difficult to assess its use. Body sherds in a square, rectangle or triangular shape become more numerous in stratum 5 and 6.



Surface finish and decoration of diagnostic and body sherds



15 - K. M. Kenyon & T. A. Holland, 1982, fig. 37, 3, Proto-Urban Period.

16 - K. M. Kenyon & T. A. Holland, 1982, fig. 39, 21, Proto-Urban Period.

17 - R. Amiran, 1978, pl. 8, 12, 15, str. IV, EB I.

18 - J. A. Callaway, 1972, fig. 15, 9, p. 61, "the hole-mouth jar with squared rim belongs in a family beginning at Jericho in Proto Urban B"; J. A. Callaway, 1980, fig. 37, 19 (Phase II Pre-Urban 3100-3000).

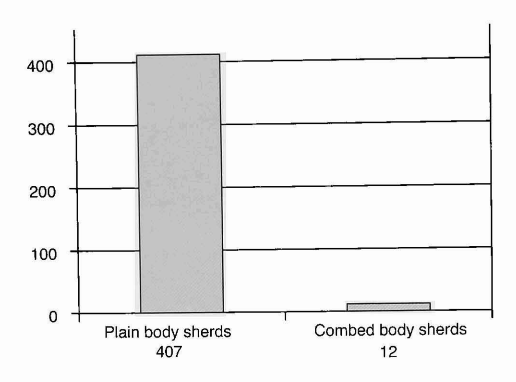
19 - R. de Vaux, 1961, fig. 3: 14-16 assigned to period 1 of the Early Bronze Age.

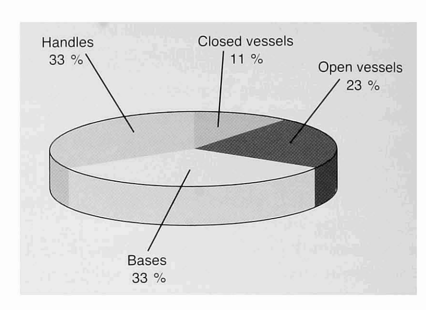
20 - K. M. Kenyon & T. A. Holland, 1982, fig. 35, 13, Proto-Urban period; J. B. Hennessy, 1967, pl. II, 5, 9 (Jericho Proto-Urban). The stump base is "a variation, which begins to develop in EB II (around 2900) and will become predominant in the following period". R. Amiran, 1969, p. 62.

21 - M. Dunand, 1936, p. 145.

22 - J. B. Hennessy, 1967, p. 50-52.

23 - R. Amiran, 1969, p. 59.





A pie chart showing the division of the diagnostic sherds in stratum 2

STRATUM 2 (**Pl. 7; p. 61**)

A layer of beach sand with very few sherds sealed the bedrock of stratum 1.

Twelve fragments were found in the sand including:

1. BOWLS

– One **V-shaped** bowl (**Pl. 7: 1**).
– A shallow **large hemispherical** bowl with simple rounded rim (**Pl. 7: 2**) and red slip applied inside and outside.
– One **platter-bowl** with a short upper-wall (**Pl. 7: 3**). The rim is round and straight. The platter has a red slip applied inside and outside.

2. JARS AND JUGS

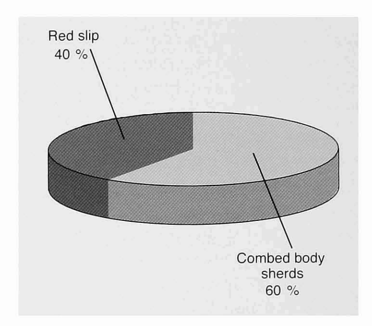
– **Low-necked jars** with everted round (**Pl. 7: 4**)[24] or square (**Pl. 7: 5**) rims. A fragment of a spouted vessel[25] was also found (**Pl. 7: 6**).

3. BASES

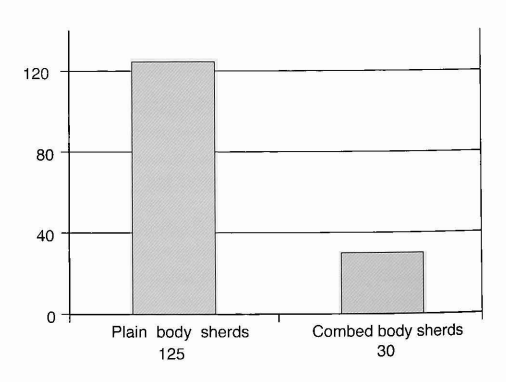
Six flat bases were found. Vessel walls meet the base at a sharp (**Pl. 7: 10-11**) or smooth (**Pl. 7: 12**) angle. Pattern combing consisting of a series of thin intersecting lines appears on one flat-based jar (**Pl. 7: 11**).

DIAGNOSTIC SHERDS

Bowls/Spouted bowls	3
Platter bowls	1
Jars and Jugs	2
Bases	6
Handles	6
Total	18



Surface finish and decoration of diagnostic and body sherds



24 - K. M. KENYON & T. A. HOLLAND, 1982, fig. 37, 3, Proto-Urban Period.

25 - R. AMIRAN, 1970, p. 86-88; J. B. HENNESSY, 1967, p. 30-31.

STRATUM 3 (**Pl. 8-20; p. 62**).

In many instances the pottery of this phase shows an improvement in technology and craftsmanship over that of stratum 1. Some pottery forms continue the traditions first identified on the bedrock while others are newly introduced. Among the latter are the large quantities of jars and jugs with the combing typical of the period.

The pottery is arranged according to form:

1. Bowls

– **V-shaped bowls** with simple rounded rim (**Pl. 8: 1**) or with a depression or groove (**Pl. 8: 2**)[26] continue in the stratum 1 tradition.

– **Small straight-sided bowls** (**Pl. 8: 3-6**). Sherds that probably derive from this type of bowl with simple rounded rims are very fragmentary and therefore could belong to any type of bowl.

– **Small to medium hemispherical bowls** (**Pl. 8: 7-20**). In their fabric and decoration the thick-walled bowls, (**Pl. 8: 10-11**) as well as the thinner bowls (**Pl. 8: 12, 13**) continue the tradition started in stratum 1. Bowls **Pl. 8: 15, 16** show a refinement in technique over those in earlier phases with plain rounded rims decorated with burnished lines. Two bowls with pointed rims have a depression on the exterior (**Pl. 8: 17, 18**). Everted rim bowl fragments **Pl. 8: 19, 20** were already found in stratum 6 (**Pl. 3: 9**, with a drooping edge).

– Only **one large hemispherical bowl** was found with a simple rounded rim (**Pl. 8: 21**) and a shallow base.[27]

– **Fine deep bowls** are introduced (**Pl. 9: 1-9**). The rim diameters vary from 10 to 15 cm. The main characteristics are simple flaring rims (**Pl. 9: 1**) or rolled out rims (**Pl. 9: 2-8**) sometimes bevelled inward (**Pl. 9: 3, 4, 7, 8**). One base has a carination line (**Pl. 9: 9**). This carinated bowl is however more characteristic of stratum 4.[28]

– **The spouted bowl** (**Pl. 9: 10**) which was common in all later strata is found here for the first time. This bowl with a side-spout common in Proto-Urban Palestine continued to be used throughout the entire Early Bronze Age.[29]

– **Platter-bowls and trays** (**Pl. 9: 11-16**). Platters and trays have an upper-wall that is short (**Pl. 9: 11-13, 16**) or high (**Pl. 9: 14**). As encountered in strata 1 and 2, the rim is straight, short and pointed. One fragment has an inwardly curved rim (**Pl. 9: 15**). One platter-bowl (**Pl. 9: 16**) has a red slip applied inside.

2. Jars and Jugs

Jars can be divided into two groups:

Jars with flaring or everted rims on short to medium length necks, or with a high collar (**Pl. 11: 4-6**). The majority of the flaring or everted rims are simple, rounded (**Pl. 10: 1-11**), pointed (**Pl. 10: 12-19**) or squared (**Pl. 10: 20-25**). Outward curving rolled rims (**Pl. 11: 1**) and collar rims (**Pl. 11: 2-6**) with a drooping lower edge[30] (**Pl. 11: 7-12**) are also common.[31] Rim diameters vary from 7 cm to 25 cm.

Some jars, which could belong to a hole-mouth type have a very short flaring or funnel-shaped neck with sloping shoulders and everted rounded, pointed (**Pl. 12: 2-8; 13: 1-8**) or squared rims (**Pl. 13: 9-10**). Some hole-mouth vessels have a very short heavy upright rounded rim (**Fig. 14: 1-7**) which gives the impression of a very short stub neck comparable to jars from Hama,[32] Ebla[33] (Mardikh II B1) and Ta'yinat (Amuq region) phase I.[34] One hole-mouth has a groove on the inside, under the rim (**Pl. 14: 8**) and resembles Palestinian hole-mouth jars.[35] Hole-mouth jar **Pl. 12: 1** is commonly found from stratum 5 onwards (see **Pl. 71**).

3. Cooking pots

Cooking pots with bevelled rims form a group of vessels of limited numbers which only occur in this stratum (**Pl. 15, 1-4**). It was difficult to identify cooking pots in the early strata at Sidon as the firing of some jugs was very similar to that of cooking pots. Fabric 3 with calcite temper was commonly used for cooking pots but was not exclusive to this type of vessel.

26 - Compare with **Pl. 2: 5**.

27 - For comparisons in stratum 1 and 2, see **Pl. 3: 13** and **Pl. 7: 2**.

28 - See **Pl. 23**.

29 - J. B. Hennessy, 1967, p. 31.

30 - For comparison, Tell el-Farah (N), R. de Vaux & A. M. Steve, 1948, fig. 6, 1 (*Ancien Bronze I*); R. de Vaux, 1955, fig. 13, 30, p. 567 (*Ancien Bronze 1, 2, 3, Bronze Ancien I et IIa*).

31 J. B. Hennessy, 1967, fig. 13 (Jericho), pl. II and J. A. Callaway, 1972, fig. 46, 6; 61, 28 (Ai in phases V and VI): "The collar rim seems to be an EB II/III transitional piece, occurring at Jericho in the destruction of the final EB II phase"; J. Garstang, 1935, pl. XXX, 12, 17.

32 - E. Fugmann, 1958, p. 39, fig. 46, 4 D 212 n° 26 (K4); fig. 64, 3 J 108, level (J6); fig. 74, 3 F 183, level (J5); (EB III), fig. 85, 3 K 304, level (J4).

33 - S. Mazzoni, 1985a, fig. 5, 4, 9, p. 6; fig. 7, 9; "Mardikh II B1 must be associated with Amuq I, Hama J8-6/5, and Ras Shamra III A2", p. 9; For the distribution of this type of hole-mouth that disappears to the North of Ebla, see S. Mazzoni, 1985b, p. 564 & fig. 4, 5, 6.

34 - R. J. Braidwood & L. S. Braidwood, 1960, fig. 305, 5, phase I, p. 399, large jars like fig. 305, 5 are not common in phase H; fig. 314, 8 level I (EB IV A) and fig. 345, 6 level J (EB IV B).

35 - Grooves appear as a common decoration on the "inward-rolled rims" in phase II (3100-3000 BC) at Ai: A. Callaway, 1972, p. 66.

4. Lamps

Smoke marks are noted on the rim of small bowls, indicating their probable function as oil lamps (**Pl. 15: 5-6**). One fragmentary multiple spouted lamp (**Pl. 15: 7**) was found. A comparable four-spouted lamp was found in an EB II stratum at Tell es Sa'idiyeh.[36]

5. Bases

Most of the bases are flat (**Pl. 16-18**) with the exception of the narrow stump-base jug (**Pl. 19: 4**).

In this level a narrow stump-based jug was found with black slip (**Pl. 19: 4**) and vertical burnishing.[37] This type of jug is common in the so-called "foreign ware groups" of First Dynasty Egypt[38] discovered in tombs at Sakkara[39] and Abydos.[40] The synchronization of EB II with the First Dynasty of Egypt is based on this type of foreign pottery found in Egypt.[41]

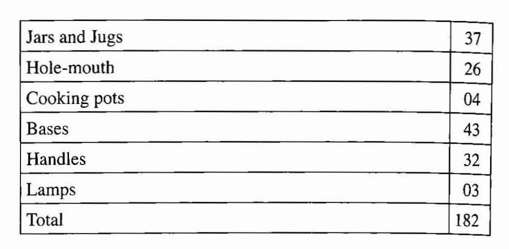
The transition from base to body in flat bases is either rounded or sharp. Base **Pl. 19: 1** has a sharp angular exterior edge with pronounced carination. Sometimes the foot has been grooved, producing a sharp edge (**Pl. 19: 2-3**). Some flat bases bear traces of combing (**Pl. 17: 1, 5; 18: 4-6, 12**). A flat string cut base (**Pl. 19: 5**) was also found.[42]

6. Handles

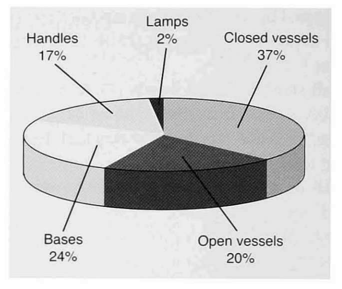
Loop handles are flat or round-sectioned (**Pl. 20: 3-7**). One example bears an incised cross potter's mark (**Pl. 20: 4**). Only one ledge handle of the pushed-up type (**Pl. 20: 2**), one of the most distinctive features of the Early Bronze Age in Palestine, was found. Ledge handles were not commonly found at Sidon. Only three were found in total.[43] According to Amiran,[44] the further north the less frequent the ledge-handle becomes suggesting Upper Galilee for the northernmost limit of their expansion. Only one lug handle was found (**Pl. 20: 1**).

Diagnostic sherds

Bowls/Spouted bowls	31
Platter bowls/Trays	06



Jars and Jugs	37
Hole-mouth	26
Cooking pots	04
Bases	43
Handles	32
Lamps	03
Total	182

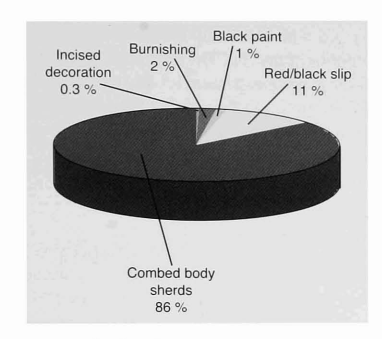


A pie chart showing the division of the diagnostic sherds in stratum 3

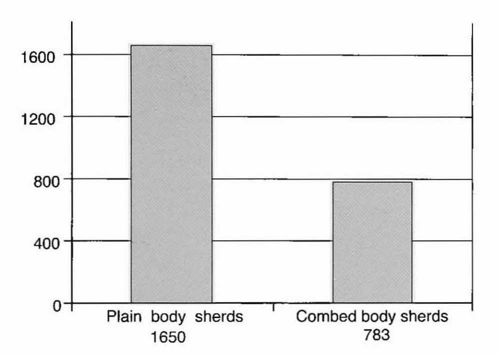
7. Surface finishing techniques

A variety of decorative techniques appear:
- Surfaces covered with red or black slip are common.
- Combing predominates.
- Burnished linear design is introduced (**Pl. 8: 15, 16; 20: 8-12**).
- Painted decoration appears in a vertical or net-pattern (**Pl. 20: 13-15**). Red paint in combination with a comb-incised horizontal band represents another type of decoration.
- Comparatively less frequent is incised decoration (**Pl. 20: 16, 17**). It appears as a herringbone motif on the base of a neck of a small-sized jar (**Pl. 11: 3**) and on a sherd (**Pl. 20: 17**). Mention should also be made of a fragment of a jug decorated with a row of tiny punched oval holes (**Pl. 20: 16**).

36 - J. Tubb, 1988, p. 52-53, fig. 30.
37 - For a similar example from Byblos, see M. Dunand, 1952, pl. III, 1 (*Bronze Ancien*); M. Saghieh, 1983, pl. XXXV & p. 104: "very long narrow stump bases appear on jugs (Byblos KI), considered to be foreign in the tombs of Djer and Djet (3rd & 4th Kings of the 1st Dynasty)"; p. 108: "We propose... to place Byblos KI towards the middle of Palestine EB I"
38 - J. B. Hennessy, 1967, p. 49-50.
39 - W. Emery, 1958, pl. 31, G11 tomb n° 3505; pl. 75, G12 tomb n° 3506.
40 - W. M. F. Petrie, 1902, pl. VI, 17, pl. VII, 28; Flinders Petrie, 1903, pl. XLII, 41 (1st Dynasty) and pl. XLIV, 93-95 (IInd-Vth Dynasty).
41 - R. Amiran, 1969, p. 58.
42 - See **Pl. 5: 21**.
43 - R. Greenberg, 2000, p. 186: "A rare to non-existent element in the EB II of the Galilee region..."
44 - R. Amiran, 1969, p. 40.



Surface finish and decoration of diagnostic and body sherds



STRATUM 4 (**Pl. 21-48; p. 62**)

Most of the vessels found in this stratum are very similar to those from stratum 3. The appearance of carinated bowls, an important and distinctive feature of EB II[45] is very significant in this stratum. The distinctive character of the material found here lies in the fact that it clearly shows the smooth progression of EB II to its direct successor, EB III. This highlights the fact that most of the repertoire of Sidon's EB III is directly related to local EB II pottery whereby the old style is still present although bearing a definite indication of styles to come. The assemblage in trench 2[46] appears to be contaminated as a result of an intrusion which on the basis of Cypriote monochrome and Palestinian bichrome sherds should be dated to the Late Bronze Age.

The pottery is arranged according to form:

1. Bowls

– **V-shaped bowls** with simple rounded rim (**Pl. 21: 1-3**) continue in the tradition of stratum 1 with one bowl (**Pl. 21: 2**), having a red slip decoration within.
– **Small deep straight-sided bowls** (**Pl. 21: 4-15**). The rims are straight, flaring outwards, everted and drooping (**Pl. 21: 10**) or thickened and bevelled inwards (**Pl. 21: 11**). Not a single bowl of this type was found complete and it is difficult to classify them. Bowls **Pl. 21: 12-15** are also consistent in their fabric and decoration of red burnished slip continuing a tradition found in stratum 1. A rounded carination line is found (**Pl. 21: 14**) towards the base.
– **Small hemispherical bowls** (**Pl. 22: 1-11**; **Pl. 23: 1-4**) are the most typical vessels. Bowl **Pl. 22: 3** is decorated with black painted lines. Bowl **Pl. 22: 4** is decorated with line burnishing using a technique also found in stratum 3. Bowls **Pl. 23: 3-4** with an out-rolled rim are introduced.
– **Carinated bowls** (**Pl. 23: 5-12**). A new characteristic among the small bowls is the carinated profile.

R. Amiran distinguishes two types at Arad in EB II; globular bowls with rim inverted at an angle which is found at Arad stratum II-I[47] and bowls of fine ware with thin walls with everted rim.[48] The carinated form is distinctively new at Sidon. Bowls have either a sharp angle at the point where the rim bends upward (**Pl. 23: 11-12**) or an outward curve going from the angle to the rim[49] (**Pl. 23: 6-10**). This type of bowl, discussed by Callaway[50] appears at Ai only in phase IV (EB II A). Callaway pointed out that the carinated bowl was more popular in the area to the north of Ai than in the south. The heartland of this family lies, according to Beck,[51] between Tell el-Farah (N)[52] and Aphek-Tel Dalit-Ai. Carinated bowls are "a type fossil" for EB II[53] and continue to be manufactured in EB III.

45 - D. L. Esse, 1991, p. 45.
46 - See p. 39.
47 - R. Amiran, 1978, pl. 22, 61, strata II-I (EB II) with a red slip inside and out, and burnishing.
48 - R. Amiran, 1978, pl. 13, 31-32 (stratum III) and pl. 22, 59 (str. II, EB II).
49 - R. Greenberg, 1996, p. 135: "Characteristic carinated bowls of the type described by Beck and ascribed to the EB II have been found at Tel Te'o..."
50 - J. Callaway, 1972, fig. 35, 19-24 (phase IV, also p. 153 on the first appearance of this bowl at the end of EB I at Jericho and in *Ancien Bronze* I at Tell el-Farah (N).
51 - P. Beck, 1985, p. 25.
52 - R. de Vaux & A. M. Steve, 1947, fig. 4, 4, 7, p. 413 (*Ancien Bronze I*).
53 - R. T. Schaub, 2000, p. 445; Miroshedji calls these vessels the "fossils directeurs" of EB II and Esse describes them as a "hallmark of EB II"; J. Callaway, 1972, p. 153: "a pattern of movement to the south may be deduced from the occurrences of the form, because it appears at Tell el-Farah in EB I C, at Jericho in Phase Kii, a transition context from EB I C to EB II, and at Ai in Phase IV, the construction phase of EB II A"

- **Fine deep bowls** (**Pl. 24: 1-15**). Their diameters vary from 10 to 15 cm. Their main rim characteristics are round (straight or with a flange, **Pl. 24: 1-4**), square flaring (**Pl. 24: 5**) or out-rolled (**Pl. 24: 6-10**) and everted round (**Pl. 24: 11-13**) or square (**Pl. 24: 14-15**).
- The **spouted bowl** (**Pl. 24: 16**) was also previously found in stratum 3.

2. Platter-bowls and Trays

Platter-bowls/trays have an upper wall that is short and straight (**Pl. 25: 1-4**) or high (**Pl. 25: 5**). Most have an inwardly curved rim. Three vessels have a red slip applied inside and/or outside (**Pl. 25: 1, 3, 4, 7, 8, 11; Pl. 26: 1, 4, 5**). Platter-bowl **Pl. 25: 9**, is distinctive with the gentle round curve of its rim. Two platter-bowls with a simple round rim are found in this stratum for the first time (**Pl. 26: 4-5**) as well as platter-bowl **Pl. 26: 6** with a rolled-in rim, a type of vessel most commonly found in the following stratum 5.

3. Jars, Jugs and Pithoi

From the evidence of the rims, it seems that all types of jars from the previous strata persisted. Jars with flaring or everted rims on short to medium length necks and sloping shoulders or with a high collar (**Pl. 27: 4, 5, 16; Pl. 28: 23-25; Pl. 29: 4; Pl. 30: 6, 8, 9, 11**) or funnel-shaped necks (**Pl. 27: 6**) and hole-mouth-jars.

- The majority of the flaring rims are simple, rounded, pointed (**Pl. 27; 28**), or squared (**Pl. 29: 1-6**) with an inside flange (**Pl. 27: 5-16, 21; Pl. 28: 4, 5, 7, 8, 11-15**). Outward curving rolled rims[54] (**Pl. 29: 8-12; 30: 1-7**) with a drooping lower edge (**Pl. 30: 8-16**) are common.[55] Everted rims (**Pl. 31: 1-7**) with a round or square rim are also found. So far only two complete high neck jars with loop handles have been found (**Pl. 28: 18, 20**). The neck is straight or tapering, the handle attached from rim to shoulder.
- Noteworthy is the appearance of large pithoi with a diameter of 18 to 48 cm with a flaring (**Pl. 32: 1**), everted (**Pl. 32: 2-5**) or collared rim (**Pl. 32: 6-9**).
- Hole-mouth vessels with a *very short* heavy upright rounded rim (**Pl. 33: 1-9**) similar to those in stratum 3 continue to be found. Three vessels have an upright collared rim (**Pl. 33: 10-12**). Hole-mouth **Pl. 34: 1** is decorated with black slip on the exterior as well as on the interior of the rim. The technique is reminiscent of a tradition popular in stratum 1.[56] The type of globular hole-mouth is similar to Palestinian hole-mouth[57] examples. Hole-mouth **Pl. 34: 2** with thickened and bevelled rim[58] becomes very common in strata 5 and 6.

4. Cooking pots

Cooking pots (**Pl. 35: 1-11**) with a diameter of 10-22 cm are distinguished by a flaring (**Pl. 35: 1-5**) or everted rim (**Pl. 35: 6-11**) with the edge of the rim generally rounded (**Pl. 35: 6**) or square (**Pl. 35: 7-11**). This type of cooking pot first appears at this stratum 4 level.

5. Bases

Most of the bases are flat (**Pl. 36-45**) with the exception of the broad and wide stump-base jug (**Pl. 45: 1-4**) found earlier in stratum 1, the narrow stump-based jugs (**Pl. 45: 5**) found in stratum 3 as well as the round base which bears an angular profile at the junction between base and body (**Pl. 45: 7**).[59] A stump base with a round profile (**Pl. 45: 6**) is introduced, which eventually replaces the broad and narrow types in strata 1 and 2.

The transition from base to body in flat bases is either rounded or sharp. Some have a grooved foot producing a sharp edge (**Pl. 44**). One example has a thin ridge (**Pl. 44: 8**) at the intersection where the body meets the base. Many flat bases bear traces of combing. One has an incised potter's mark (**Pl. 37: 10**).

6. Handles

The loop handles are flat or round-sectioned (**Pl. 46: 1-3**). Only four lug handles (**Pl. 46: 4-7**) were found.

Diagnostic sherds

Bowls	54
Platter bowls/Trays	20
Jars and Jugs	81
Hole-mouth	15
Pithoi	09

54 - R. de Vaux, 1955, fig. 13, 2, *Ancien Bronze 1, 2, 3* p. 567, *niveaux du Bronze Ancien I et IIa.*

55 - J. B. Hennessy, 1967, fig. 13 (Jericho), pl. II and in EB III B, pl. IX, 93a; pl. X, 98a; J. A. Callaway 1972, fig. 46, 6; 61, 28 (Ai in phases V and VI): "The collar rims seem to be an EB II/III transitional piece, occurring at Jericho in the destruction of the final EB II phase"

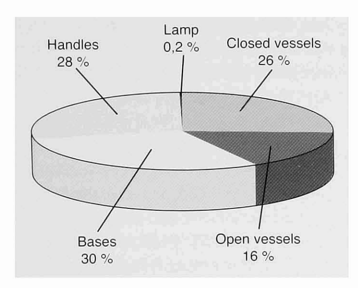
56 - J. A. Callaway, 1972, p. 60, "Plain hole-mouth jars with slip on the outside is the earliest form, first appearing in Chalcolithic strata..."

57 - See also **Pl. 14: 8**.

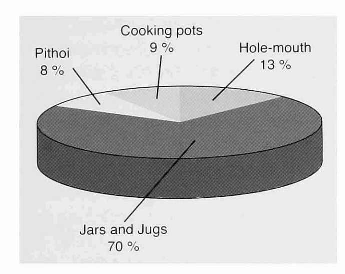
58 - See also **Pl. 12: 1**.

59 - See also **Pl. 19: 1**.

Cooking pots	11
Lamp	01
Bases	135
Handles	129
Total	455



A pie chart showing the division of the diagnostic sherds in stratum 4

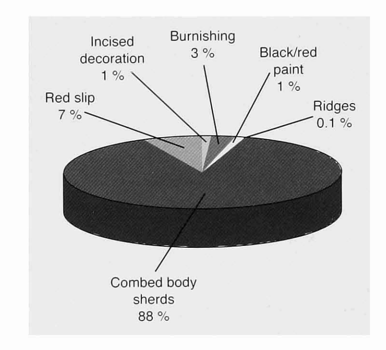


A pie chart showing the division of the closed vessels in stratum 4

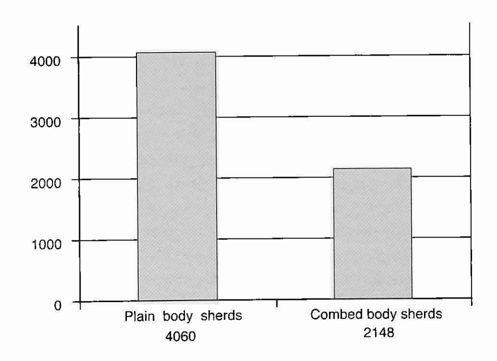
7. Surface finishing techniques

A variety of decorative techniques appear:
– Finished surfaces covered with red slip are less common.
– Combing predominates (**Pl. 47: 1-8**).
– On the inside and/or outside of bowls painted patterns (**Pl. 22: 3**; **Pl. 26: 6**) appear as well as burnished line decoration (**Pl. 22: 4**). Red slip or painting in combination with horizontal combing represent another type of decoration (**Pl. 47: 6-8**).
– Burnished (**Pl. 47: 13**) and painted net patterns (**Pl. 47: 10-11**) are popular.
– Comparatively more frequent is the incised decoration (**Pl. 48: 1-8**). Rows of incisions appear at the base of a handle (**Pl. 48: 2**) and on body sherds.
– Ridges start to appear (**Pl. 48: 9-11**). They are sometimes found at the intersection of neck and body.

Shaped-triangular body sherds are also found (**Pl. 48: 12-13**).[60]



Surface finish and decoration of diagnostic and body sherds



STRATUM 5 (**pl. 49-101; p. 63**)

Generally speaking the pottery at this level is less varied, more standardized, and appears of superior manufacture and firing to that from the previous periods. Fabrics 2 and 1 predominate (**p. 63**).

60 - See **Pl. 6: 15**.

Finds suggest that the repertoire is dominated by storage jars of which the hole-mouth and a variation of its type are represented in good proportion. Next, but in smaller numbers, are the bowls.

The pottery is arranged according to forms:

1. Bowls

– **Small to medium hemispherical bowls (Pl. 49-52: 1-6).** These bowls belong to a form too common from stratum 1 to be of chronological significance. The rims can be plain flaring or slightly incurving (**Pl. 49: 22**). Bowls with a depression under the rim (**Pl. 50** and **51**) have a pronounced out-rolled (**pl. 50: 1-17**) or everted rim (**Pl. 50: 18-19**; **Pl. 51: 1-11**) with an inside flange (**Pl. 51: 2, 4, 5, 10, 11**). One bowl has an everted rim and drooping edge (**Pl. 50: 20**). The bowls with a depression under the rim are particular to stratum 5. One vessel is decorated on the inside with burnished stripes in a net pattern (**Pl. 51: 10**).

– **Small deep straight-sided bowls** (**Pl. 52: 7-11**) with a flaring rim. One bowl has an everted rim (**Pl. 52: 11**) another has black paint on the exterior and interior (**Pl. 52: 8**).

– **Carinated bowls** (**Pl. 53: 1-6**). Only bowls with an angle at the point where the rim bends upright are found in this stratum.

– **Fine deep bowls** (**Pl. 53: 7-24**; **Pl. 54**; **Pl. 55: 1-15**) appeared in small quantities from stratum 3 onwards. They are however undoubtedly the most typical bowl in this stratum. Some bowls have a very short neck that is clearly demarcated from the wall of the vessel.[61] The diameter varies from 8 to 17 cm. The rims are plain, straight and flaring (**Pl. 53: 7- 24**),[62] or everted (**Pl. 54: 1-9**) with a broad flange (**Pl. 54: 1, 5, 9**). Fifteen vessels have a pronounced out-rolled rim (**Pl. 54: 10-16; 55: 1-8**) and two, a squared rim (**Pl. 55: 9-10**). The outer surface of the bowls is generally smooth and scraping marks are discernible. Six vessels are decorated with painted (**Pl. 53: 17**; **pl. 54: 6**) or burnished (**Pl. 53: 18**; **Pl. 54: 7**; **Pl. 55: 1, 15**) stripes in a net pattern.

– **Spouted bowl** (**Pl. 55: 16**) as found from stratum 3 onwards.[63]

– **Platter-bowls and Trays (Pl. 56).** Trays were found with an articulated rim and a flat base. Flat-based trays which appear at Jericho in EB II are also found there in EB III.[64] In Sidon platter-bowls with inwardly curved rims (**Pl. 56: 9-12**) are found as well as platter-bowls with "a rolled-in rim" (**Pl. 57: 1-9**) and a diameter that varied from 10 cm to 20 cm, mainly in this stratum. According to Hennessy[65] this type of platter-bowl appears to be equally late, occurring at Jericho but also found at other sites in Palestine to the south of Sidon and as far north as Tell-el-Judeideh[66] in North Syria at the end of the Early Bronze Age period.

2. Jars and Jugs

A new form is introduced, namely the neck-handled jug. It's main characteristic is that the handle stems from the middle of the neck (**Pl. 58: 14-15**) and not from the rim to the shoulder. This type makes its appearance some time during the second half of the EB II.[67] Where the handle stems from the rim, two types of necks are found: short and wide, with the diameter of base and neck almost equal (**Pl. 58: 2**) with a decoration of net burnishing on the shoulder and body (**Pl. 58: 2, 20**) or long and narrow (**Pl. 58: 3, 5**) with vertical burnishing. Some jugs have two handles. In this case the neck is long, straight (**Pl. 58: 9, 13**), short and funnel-shaped (**Pl. 58: 8, 11**) or everted (**Pl. 58: 12**). One ridge is found at the base of the neck (**Pl. 58: 19**).[68]

Rim types in this category of vessel do not vary from stratum to stratum and the same types – rounded, straight and flaring (**Pl. 58**; **Pl. 59**; **Pl. 60: 1-21**) or with a flange inside (**Pl. 60: 22-28**) – previously described are also found. Collared bevelled rims (**Pl. 61: 1-19**) rolled out to form a bulb (**Pl. 62: 1-19**; **Pl. 63: 1-4**) are similar to EB III sherds found in Beirut,[69] Tell Yarmouth,[70] and Tell Arqa.[71] Also found are rims with a drooping lower edge (**Pl. 63: 5-13**). Other forms include the collared plain rim (**Pl. 64: 1-3**) and the everted round (**Pl. 64: 4-15**) or squared rim (**Pl. 65: 1-4**) which have parallels in Beirut.[72] A new shape of rim with a ridge on the neck is introduced (**Pl. 65: 5-10**) which is similar to EB I-II sherds from Tell Farah (N).[73]

Hole-mouth jars are typical of this stratum. A common category is of large heavy globular forms made of a coarse

61 - P. Beck, 1985, p. 20-21.

62 - Compare Tyre, P. Bikai, 1978, pl. LVIII, 22, EB III; Tel Yarmouth, P. de Miroschedji, 1988, fig. 27, 3, EB III A.

63 - See **Pl. 9: 10** and **Pl. 24: 16**.

64 - J. B. Hennessy, 1967, pl. VII, 67.

65 - J. B. Hennessy, 1967, p. 24.

66 - R. J. Braidwood & L. S. Braidwood, 1960, p. 352, platters characteristic of phase G appeared at both Judaideh and Ta'yinat, fig. 271, 1, phase H (dated to the appearance of Khirbet Kerak ware).

67 - R. Amiran, 1978, p. 182-183; D. L. Esse, 1991, p. 105: "Amiran uses the neck-handled jug as one of her indicators for dating Arad strata I-II to some time in the latter half of EB II, but the early appearance of the neck handled jugs at these northern sites reduces its value as a chronological indicator"

68 - Compare to J.-P. Thalmann, 2000, at Tell Arqa, phase R, EB III, fig. 24 a and M. Dunand, 1936, at Byblos, fig. 1, p. 145.

69 - L. Badre, 1997, fig. 6, 1, 6.

70 - P. de Miroschedji, 1988, pl. 39, 15, EB III A.

71 - J.-P. Thalmann, 2000, phase R, EB III, fig. 24 a.

72 - L. Badre, 1997, fig. 6, 4-5, EB III.

73 - R. de Vaux, 1955, fig. 13, 16, *Bronze Ancien 1, 2, 3*, p. 567, *niveau de l'Ancien Bronze I et IIa.*

reddish-brown heavy ware. Body sherds are friable. It is difficult to know if these vessels were cooking pots or jars. The hole-mouth jars at Sidon are not like those found in Palestine of the same period but rather seem to be descended from contemporary Syrian examples whilst at the same time remaining unique.

Rim shapes include the following:

Plain rounded rim (**Pl. 66: 1-8**), thickened[74] and bulbous rim (**Pl. 67-70**)[75] comparable to jars from Tell Arqa[76] in North Lebanon, Syria, Ebla (Mardikh II B 1)[77] Hama and Tell Sweyhat.[78] There are also variant rim forms in this category, namely bevelled (**Pl. 71: 1-14**) or grooved (**Pl. 72: 1-5**).[79] The folded-out rim (**Pl. 79: 8-10**) is only found in stratum 5 and 6 and appears at Hama in stratum J.[80]

The rim diameters range from 13 to 26 cm. Hole-mouth vessels with a heavy upright rounded, pointed or squared rim found from stratum 3 onwards are still popular in this stratum (**Pl. 73-75**).[81] A variant of this rim is the upright rim with a broad flange[82] (**Pl. 76-78: 1-8; 79: 1-7**) also comparable to jugs from the Amuq region.

Distinctive coarse horizontal corrugation/combing appears on the surface of the vessel (**Pl. 66: 1; Pl. 67: 10; Pl. 68: 7, 9, 10; Pl. 69: 3; Pl. 71: 10; Pl. 75: 3**) as well as lighter combing below the rim (**Pl. 67: 3; Pl. 68: 4; Pl. 69: 1, 2, 12; Pl. 70: 1, 6-7; Pl. 71: 2, 4; Pl. 72: 3; Pl. 73: 9; Pl. 74: 1, 5; Pl. 75: 2, 4; Pl. 77: 1-2; Pl. 78: 1, 3, 6; Pl. 79: 1, 5, 6**). The coarse combing is characteristic of that found on cooking pots or jugs of the EB III in Syria, namely at Ebla,[83] Ras Shamra,[84] Hama[85] and Tell Sianu.[86] The homeland of this type of decoration is thought to be either in north-western Syria or northern Mesopotamia, to the west of the upper Euphrates river valley.[87]

3. Cooking pots

Cooking pots (**Pl. 80: 1-8**) with a rounded or square edged everted rim were previously found in stratum 4.

4. Lamps

Four lamps (**Pl. 81: 1-4**) were found. Three hemispherical (**Pl. 81: 1, 3, 4**), the fourth carinated (**Pl. 81: 2**).

5. Bases (Pl. 82-97)

Most of the bases are flat. The transition from base to body is either rounded or sharp. Some are slightly concave (**Pl. 91 & 92**); some show a slight reverse curve in the profile from base to body (**Pl. 95**). Sometimes the base is grooved, producing a sharp edge (**Pl. 96: 1-8**);[88] some bear traces of combing and are very similar in size and type of combing to bases found in the EB III on the Syro-Palestinian coast.[89] Additionally the characteristic Syrian horizontal corrugation/combing on jars becomes more common in this level.[90] Some bases have vertical or net burnished decoration. Stump base jugs and juglets (**pl. 97**) commence as early as EB I, but they are a hallmark of the following periods.[91] In Sidon, several stump bases of jugs (**Pl. 97: 1-12**),[92] and two elongated stump bases of jars were found (**Pl. 97: 13, 14**)[93] along with spike bases (**Pl. 97: 15-16**). One base with a sharp angular exterior edge and pronounced carination was found (**Pl. 94: 3**).[94] Flat string-cut bases are more popular (**Pl. 94: 4-9**).[95]

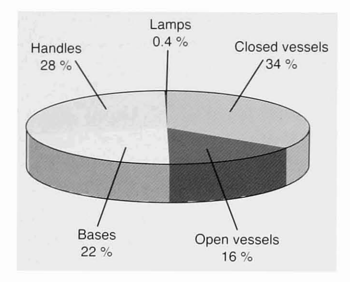
6. Handles

Five lug handles (**Pl. 98: 4-9**) and loop handles with oval sections were found in stratum 5. Three handles are incised with motifs added to the clay before firing and are considered "potter's marks" (**Pl. 98: 12-14**) like an X (**Pl. 98: 12**), a simple pattern consisting of plain horizontal short slashes (**Pl. 98: 13**),[96] or the more elaborate two V shaped motifs (**Pl. 98: 14**). One handle is impressed with a circle (**Pl. 98: 15**). Two ledge handles were also found (**Pl. 98: 10-11**).

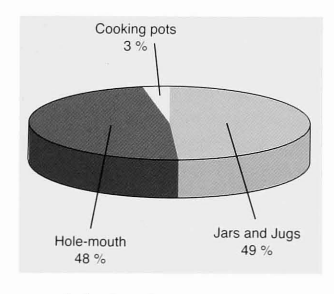
74 - Compare Mardikh II B 1, S. Mazzoni, 1985a, fig. 5, 1-2, "Mardikh II B 1 must be associated with Amuq I, Hama J8-6/5, and Ras Shamra III A 2", p. 9.
75 - Compare P. Matthiae, 1982, fig. 16, 8, 9, Royal Palace G at Ebla, (pottery from the destruction of the building, 2300/2250 BC); J. Matthers, 1978, Tell Rifa'at fig. 10, 47-50, p. 140, hole-mouth with bulbous thickened rims (EB IV) are compared to Mardikh II B I, Hama J8, J7, J5, J3.
76 - J.-P. Thalmann, 2000, fig. 24 a, *phase R, Bronze Ancien III.*
77 - S. Mazzoni, 1985a, fig. 5, 4, 9, p. 6; fig. 7, 9; "Mardikh II B 1 must be associated with Amuq I, Hama J8-6/5, and Ras Shamra III A 2", p. 9.
78 - For a discussion of this type of hole-mouth and its distribution in Syria, disappearing to the north of Ebla, see S. Mazzoni, 1985b, p. 564 & fig. 5.
79 - Compare, Hama, E. Fugmann, 1958, fig. 58, 3F 183, p. 53, level J; fig. 64, 3J 108, p. 58, level J; fig. 85, 3K 304, level J4, second half of the third millennium; R. J. Braidwood & L. S. Braidwood, 1960, fig. 304, 22, phase I.
80 - E. Fugmann, 1958, p. 64, fig. 74, 3 F 17.
81 - T. Mathias & P. J. Parr, 1989, Tell Nebi Mend, fig. 10, 43 (pottery of final building phase; E. Fugmann, 1958, fig. 65, 3 H9 19 and 3 G 925, level J.6, p. 59; fig. 85, 3k 304 level J.4 (end of EB III).
82 - E. Fugmann, 1958, fig. 46, 4 C 301 n° 27; 4 B 759 n° 23, p. 39 (Hama K 6-K 5); fig. 49, 7A 860 (niveau K 4), p. 42, EB III; T. Mathias & P. J. Parr, 1989, Tell Nebi Mend fig. 10, 45, 46 (final building phase).
83 - S. Mazzoni, 1985a, fig. 5, 5, 9 p. 6, Mardikh II B 1, second half of the third millennium.
84 - J.-C. Courtois, 1962, 437, fig. 25, H, *Ugarit Ancien III.*
85 - E. Fugmann, 1958, fig. 58, 3F 183, level J, p. 53; and fig. 3K 307, level J, p. 56, second half of the third millennium.
86 - A. Bounni & M. Al-Maqdissi, 1994, fig. 3, 15, EB III.
87 - T. A. Holland, 1980, p. 128, type A of comb-incised ware.
88 - See **Pl. 19: 2-3**, str. 3; **Pl. 44: 9-11**, str. 4.
89 - A. Bounni & M. Al-Maqdissi, 1994, fig. 2, 5-9, p. 26, EB III.
90 - S. Mazzoni, 1987, p. 87: "The corrugated jars from slightly farther inland in Syria..."
91 - J. B. Hennessy, 1967, p. 22; See **Pl. 6: 3-4**; **Pl. 19: 4**; **Pl. 45: 1-6**.
92 - V. Fargo, 1979, p. 140; J. A. Callaway, 1972, p. 259, phase VI EB III A.
93 - J. B. Hennessy, 1967, p. 23; pl. VII, 73, p. 13.
94 - See **Pl. 19: 1** str. 3; **Pl. 45: 7** str. 4.
95 - See **Pl. 5: 21**, str. 1; **Pl. 19: 5**, str. 3.
96 - Compare Tyre, P. M. Bikai, 1978, pl. LVI, 14, EB III.

Diagnostic sherds

Bowls	120
Platter bowls/Trays	22
Jars and Jugs	150
Hole-mouth	147
Cooking pots	8
Bases	195
Lamps	4
Handles	246
Total	892



A pie chart showing the division of the diagnostic sherds in stratum 5



A pie chart showing the division of the closed vessels in stratum 5

7. Surface finishing techniques

A variety of new decorative techniques appear:

– Finished surfaces covered with red slip are less common.

– The dominant characteristic of the pottery is the surface combing on thin, hard, well-fired, reddish clay as well as on heavier thicker sherds. Several combing patterns appear: oblique lines, intersecting lines, vertical and horizontal lines,[97] zigzag decoration[98] and a chequered design. Some of the incisions drawn with the end of a toothed instrument create a thickening in the clay at the intersections of the lines.

– Paint is the most common form of decoration. The most typical application of the paint is black stripes (**Pl. 100: 8-11**) sometimes applied in a net pattern (**Pl. 100: 1, 12, 13**). The second form of painted decoration is a thin black watery wash applied unevenly in large horizontal black bands (**Pl. 100: 6-9**). It is very different from the EB III painted tradition appearing in Palestine at Tell Yarmouth,[99] Ai,[100] Tell el-Hesi and Tell Beit Mirsim[101] where paint is usually red and sometimes applied on a creamy white slip.

– Burnished net pattern design is also popular (**Pl. 100: 2-5, 14**). The crossing line patterns of the burnished and painted decoration differ in Sidon in that they are more tightly designed than in Palestine. The widely spaced[102] net pattern appears in Palestine and Syria in the Chalcolithic/Early Bronze Age I[103] and is also found in later EB[104] deposits at Megiddo in stratum XIX-XVI,[105] EB II-III, and at the end of the EB at Tyre.[106]

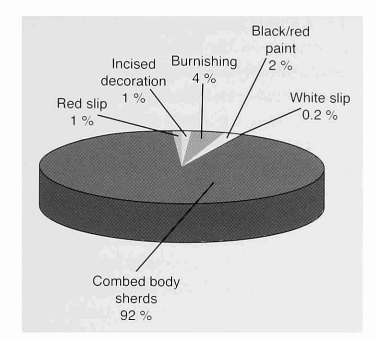
– Incised decoration becomes more popular in strata 5 and 6. This type of decoration is prevalent throughout northern Syria and northern Mesopotamia during the last quarter of the 3rd millennium BC.[107] Incised decoration consisting of a horizontal line of oval incisions (**Pl. 99: 1-8; 10**) with a burnished net pattern design (**Pl. 99: 11** or **Pl. 99: 10** with combing) placed at the base of the neck (**Pl. 99: 7**)[108] is commonly found at Sidon. One intersecting line forming an X motif is also present (**Pl. 99: 9**).

Comb-incised ware consisting of evenly applied wavy bands (**Pl. 99: 12**) which are fairly closely spaced, appear for the first time in this stratum. This type of decoration was common throughout northern Mesopotamia, Syria and Palestine during the last quarter of the 3rd millennium.[109]

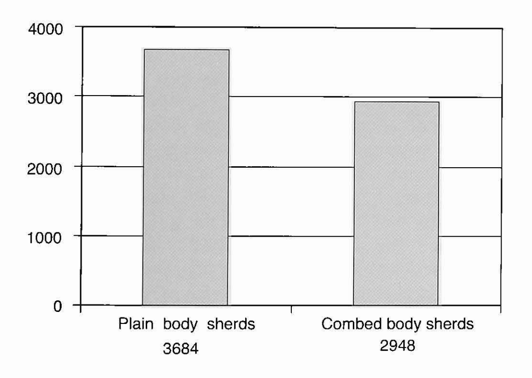
97 - Compare Ras Shamra, C. F. A. Schaeffer, 1962, p. 203; H. de Contenson, 1989, p. 321.
98 - Compare Ras Shamra, C. F. A. Schaeffer, 1962, p. 203; H. de Contenson, 1989, p. 321.
99 - P. de Miroschedji, 1988, p. 77, EB III A.
100 - J. A. Callaway, 1972, fig. 66, 6, 7; 10-17, phase VI, EB III.
101 - V. Fargo, 1979, fig. 27, 20, p. 124; fig. 40, 4, 5, p. 179.
102 - V. Fargo, 1979, p. 124-125.
103 - J. B. Hennessy, 1967, p. 40, pl. III, 25.
104 - J. B. Hennessy, 1967, p. 40, pl. XLIX; L.
105 - R. M. Engberg & G. M. Shipton, 1934, 25; G. Loud, 1948, pl. 97, 46; 99, 5-7, 9-14; 104, 9-14; 105, 1-4, 6; 107, 31-33; 110, 5, 6; D. L. Esse, 1991, p. 69.
106 - P. M. Bikai, 1978, pl. LVIII A, 19-22; pl. LVI, 16.
107 - T. A. Holland, 1980, p. 142.
108 - Compare Tyre, P. M. Bikai, 1978, pl. LVII, 60, 64, EB III.
109 - T. A. Holland, 1980, p. 130-131.

Another motif which becomes more popular at this level is the herringbone incised ware[110] (**Pl. 99: 13-14**). One sherd has two V-shaped incisions (**Pl. 99: 15**). A white wash is occasionally found on the surface of combed vessels.

Some sherds were deliberately round, square or triangular and may have been used for burnishing. These sherds are more numerous (**Pl. 101**) in this stratum.[111]



Surface finish and decoration of diagnostic and body sherds



STRATUM 6 (**pl. 102-166; p. 63**)

Stratum 6 is an intermediate horizon following an EB III level and preceding a Middle Bronze Age level. This horizon, referred to as EB IV, MB I, "Intermediate Early-Middle Bronze, is in some regions recognized as an independent EB IV sub-phase distinct from the previous EB III period. In Sidon, stylistic development in stratum 6 does not demarcate it from the preceding period.

Finds suggest that the repertoire is dominated by storage jars of which the hole-mouth is represented in good proportion. Next, but in much smaller numbers are the bowls.

The pottery is arranged according to forms:

1. Bowls

– **Hemispherical bowls** (**Pl. 102**) are a common shape found throughout the Early Bronze Age. Bowls with a depression under the rim (**Pl. 103; Pl. 104: 1-4**) form a distinctive type found as of stratum 5 and have a thicker profile. These bowls have close parallels with those from the Euphrates, Tell Hadidi[112] and Tell es-Sweyhat[113] in the last quarter of the 3rd millennium BC. Bowl **Pl. 104: 5** with a ridge on the rim is also found in the last quarter of the 3rd millennium at Tell es-Sweyhat.[114]

- **Small deep straight sided bowls** are also found (**Pl. 104: 6-14**).

- As far as **carinated bowls** (**Pl. 105**) are concerned, several different shapes can be discerned. There is a continuous range of variation between carinated and fairly carinated. In some cases the carination line on the bowls varies in sharpness (**Pl. 105: 13**) and is rounded in some specimens (**Pl. 105: 4-10**). In others (**Pl. 105: 11-12**) the carination is lost altogether, being replaced by deep bowls with handles, rounded walls and flanged rims.

- **Fine deep bowls** (**Pl. 106**). These bowls are found in a lesser quantity than in stratum 5 (see p. 48). Shapes of rims remain very similar to those previously found.

- **Spouted bowls** (**Pl. 107**). Spouted bowls were found at Sidon in each level from stratum 3 onwards.

- **Platter-bowls and Trays** (**Pl. 108**). Tray **pl. 108: 1** is covered with a red-orange burnished slip. Shallow plates found at Sidon in stratum 6 proliferate especially in EB II and **Pl. 108: 8** has a pointed rim slightly up-turned and a diameter of 22.5 cm. It is very similar to another found in EB II Beth Yerah (Khirbet Kerak).[115] Platter-bowls with "a rolled-in rim" popular in stratum 5 almost disappear. Only one example was found (**Pl. 108: 17**). Platter-bowls with an inwardly curved rim (**Pl. 108: 18**) found throughout strata 1 to 6, are the classic shape of Early Bronze Age Palestine.[116] Simple bowls with round rim are more common in stratum 6 than the inwardly curved rim types that dominated all previous strata at Sidon.

110 - T. A. Holland, 1980, p. 141, incised wares had their origin somewhere west of the upper Euphrates River valley.
111 - See also **Pl. 6: 15**, str. 1; **Pl. 48: 13**, str 4.
112 - R. H. Dornemann, 1979, p. 129, fig. 18, 8 (EB IV).
113 - T. A. Holland, 1977, fig. 3, 4, last quarter of the 3rd millennium.
114 - T. A. Holland, 1977, fig. 2, 10, p. 44.
115 - D. L. Esse, 1991, pl. 1E, 45.
116 - G. E. Wright, 1937, p. 94.

2. Jars and Jugs

– A two-handled slender egg-shaped jar was found (**Pl. 109; photo 21, p. 74**). It has a narrow flat base and combed decoration on the outer surface resulting in plain horizontal bands in relief. It shows, in shape and decoration, close parallels with the jars from Gizah dating to the V[th]-IV[th] Dynasties (2613- 2345 BC).[117] On a morphological basis, Sidon's jar is also comparable to the Fourth Dynasty jar 14406 from Byblos that bears only horizontal combing[118] whereas other jars with similar shape but with more complex patterns are found in Egypt during the VI[th] Dynasty.

– A small jug[119] (**Pl. 117; photo 19-20, p. 73**) with a loop-handle springing from its flaring rim to its shoulder and surmounted by the head of a quadruped, «a ram in an upright position with its head resting on the rim», was found in stratum 6. The jug is 17.5 cm high, oval in shape (diameter. 12.5 cm), almost perfectly symmetrical and widest at the shoulder. The diameter of the base (3 cm) is slightly smaller than the neck (3.4 cm). The Sidon example found in 1998 is very similar to one attached to a twin jar from Byblos dated between 3100 to 2800 BC.[120] The twin jar is reminiscent of those vessels that represent the diagnostic ceramic features of the Chalcolithic period in Palestine. Maurice Dunand found other examples in Byblos. These were in a single structure where cult-objects were found *in situ* on the floor. Dunand assigned this structure to the "period of the Amorite conquest".[121] Its position within the "sacred enclosure" indicates that it was erected after an earlier structure was destroyed by fire at the end of the VI[th] Dynasty. This was before vast rebuilding had taken place within the same enclosure at the beginning of the XII[th] Dynasty.[122] It is worth noting that the caprids protruding above the rim found at Sidon and Byblos, are only associated with slow-pouring vessels. Other animals are also represented in an upright position protruding-above-rim.

Upright position protruding above the rim

Bovines

– Syria: Other horned animals, mainly bovines, were found protruding-above-rim at Ras Shamra/Ugarit. In Ugarit level IVB (5[th] millennium) a painted fragment of a canine or bovine image was found together with painted pottery of the Halafian style.[123]

– Palestine: Horned animals are found on projecting-above-rim bowls[124] in level IV at Teleilat Ghassul and on a copper crown n° 1015 from Nahal Mishmar.[125] A ring-walled ceramic cult-stand was discovered in the course of excavating the circular buildings of Beth-Yerah/Khirbet el-Kerak dated to the EB III.[126] Two identical animal-bust figures are perched on the brim. These are, according to Amiran, most probably bulls /cows, judging by the shape of the up-turned horns and the relatively long heads. The shortness of the horns perhaps suggests a calf. Amiran sees parallels between the Beth-Yerah cult-stand, and the Chalcolithic copper treasure from Nahal Mishmar in the Judean desert.

However the most common animal depicted protruding in an upright position, mainly above the rim of a bowl or a basin, is a snake. It occurs most commonly in Palestine and Mesopotamia. In Mesopotamia and Syria the snake also travels sideways.[127]

Snakes

– Syria: Several fragments with snakes applied in relief were found in the temple of Ishtar at Mari dated to the beginning of the second millennium.[128] A bowl decorated with a pair of snakes and scorpions which cling to its sides was found on the floor of a house at Tell Brak and dated to the III[rd] Dynasty of Ur.[129] Another vase also from Tell Brak and dating to the Third Dynasty of Ur (end of 3[rd] millennium BC)[130] is decorated with an appliqué scorpion and three snakes, the heads of which are dipping into the vase.

– Palestine : Serpents moulded in relief on the surface of vessels are extremely common in Palestine. The earliest specimens date to the Chalcolithic period at Teleilat Ghassul.[131] The snake is either plain or decorated with incised or dotted marks. The same motif occurs in EB I at Jericho[132] and at many other Palestinian sites until the Late Bronze Age.[133]

– Northern Mesopotamia: The Halafian snakes with dotted bodies occur only as painted motifs. Other examples

117 - S. Mazzoni, 1987, p. 147, fig. 6, p. 237.
118 - S. Mazzoni, 1987, p. 149.
119 - C. Doumet-Serhal, 2001, p. 9-15.
120 - D. Baramki, 1973, p. 27, 28, fig. 1.
121 - M. Dunand, 1954, n° 12842, fig. 637, p. 555; n° 15758, fig. 913, p. 799; pl. CLXXIV, 14284, 15757, 42, 12842.
122 - O. Negbi, 1972, p. 98, 109-110.
123 - H. de Contenson, 1973, p. 31, fig. 17; H. de Contenson, 1992, pl. CLI, 4, p. 403, *niveau IV B4 (dernier quart du VI[ème] au troisième quart du V[ème] millénaire)*.
124 - A. Mallon, R. Koeppel & R. Neuville, 1934, p. 83, fig. 35, 8; C. Elliott, 1978, p. 47-49.
125 - P. Bar-Adon, 1971, p. 32.
126 - R. Amiran, 1989, pl. 6, a, b.
127 - R. M. Boehmer, 1972, pl. 51, 212 (Obeid period); H. Kühne, 1976, pl. 27, 4-5 (Early Dynastic); C. Eliott, 1978, p. 42.
128 - A. Parrot, 1956, p. 231, pl. LXXII, 510, 511.
129 - M. E. L. Mallowan, 1947, p. 229-230, pl. LXXX, 1-5.
130 - *Ibid.*, p. 229-230.
131 - R. Koeppel, 1940, pl. 97, 17, p. 59; A. Mallon, R. Koeppel & R. Neuville, 1934, pl. 52, 1-2.
132 - J. Garstang, 1935, pl. XXXVII, 22, 23.
133 - O. Keel, 1992, p. 234-237; W. F. Albright, 1932, p. 13.

were found in levels H and G in the archaic Ishtar Temple at Assur dating to the 4th and 3rd millennium.[134] The prevalence of snakes moulded in relief occurs on the surface of bowls and large jars from Stratum VII (the end of the Jemdet-Nasr period) to Stratum IV (3rd Dynasty of Ur) at Tepe Gawra indicating cult objects.[135] One snake has a tree incised on its back and on either side of its body. At Nuzi (temple F and G) several sherds with snakes in relief were found at the end of the 3rd millennium (3rd Dynasty of Ur).[136]

Horned animals depicted on pottery are also represented in Chalcolithic/ EB I in two different ways:

Carrying or standing in a vessel

An animal carrying a pointed juglet on its back is, according to R. Amiran,[137] typical of the sculptured stone vases of Uruk art. The pottery vessels from Palestine seem, at least in concept, to have a distant relationship to these Mesopotamian stone vessels.

A fragmentary statuette of an animal, possibly a ram carrying two churns (one broken off), was found in the Chalcolithic temple at En-Gedi. Pottery churns of various sizes are frequently found in excavations and although they were used in everyday life, are according to Amiran,[138] associated with specific rituals. A ram with three cornets on its back was found at Gilat in the Northern Negev.[139] The ram is hollow so that liquid poured into the cornets would flow into the ram's body. This and the portrayal of its sexual organs suggest that it may have been used in cult rituals related to the fertility of sheep/goat herds. A bowl was found in Tomb 14 at Tell el-Farah North which dates to EB I with the figure of an ox/bull standing in its centre.[140] Another bowl (EB I)[141] similar to the one from Tell el- Farah contained paired oxen. It is assumed to have been found in a tomb near the latter site.

Applied on pottery below the rim

Caprids or cervids are also found depicted below the rims on pottery in Mesopotamia, Lebanon,[142] Egypt and Palestine.

– Lebanon: At Byblos, the combed-ware on oil jars bears the same applied symbol or trademark of a ram's head (EB I or II).[143] Mazzoni[144] suggested that this small appliqué ram's head might offer a clue to tracing the origin of these vessels.

– Egypt: An applied ram's head was found on the shoulder of a jar from the Giza necropolis Tomb G 7330A (IVth Dynasty) which points, according to Mazzoni, to it being an import from Byblos since at least two jar fragments bearing the same appliqué ram's heads were found there.[145]

– Palestine: A small fragment of a rim with two moulded gazelles looking toward the base was found at Teleilat Ghassul in level IVB. The gazelles are placed just below the rim, on the interior of an open-mouth bowl.[146]

The distribution of this motif in the Early Bronze Age is more widespread than was previously thought.[147] A similar *appliqué* head was discovered at Megiddo, stratum XVIII (EB II or EB III) whereby in Jericho (EB) the ram's head is replaced in one case by a bucranium from level IV or V which was dated to EB II. At Ai and Lachish the same type of head is dated to EB III or possibly earlier.

– Mesopotamia: The most common decoration is the applied full-face animal heads that seem to anticipate Halaf. Many examples, such as at Umm Dabaghiyah, consist of ram and goat heads applied on the pot.[148] In addition to wall paintings, horned animal heads are found applied on pottery below the rim.

All the above-mentioned animals, caprids, bovines and snake images occur in Palestine in the Chalcolithic/EB I period, Palestine being at the time a melting pot. The distribution of other images indicates, it seems, a sort of parting of the ways. The snake, especially revered from earlier times, recurs more frequently at many Western Asiatic sites well into the end of the 2nd millennium. In Lebanon the caprid, not found in Mesopotamia (with the exception of the early example at Umm Dabaghiyah) or Syria, is however the only animal applied on vessels and often protruding above the rim. Two sites, Byblos and Sidon, at a specific time, namely the Early Bronze Age, chose the ram as a cultural symbol of their own for a specific type of slow-pouring vessel, namely the jug. It might be unwise to draw too many conclusions from a single object but it

134 - W. Andrae, 1922, pl. 21, b, c, e, h.
135 - E. A. Speiser, 1935, p. 112, 157, pl. LXXVI, 7 (stratum VII end of Jemdet Nasr period), 12 (str. 5, p. 160), 13 (str. IV 3rd Dynasty of Ur, 2250 BC), p. 183.
136 - R. F. Starr, 1937, pl. 60 E1 & A1, 2, 3, p. 373.
137 - R. Amiran, 1981, p. 49-52, fig. 2, p. 50.
138 - *Ibid.*, p. 51-52.
139 - D. Alon & Th. E. Levy, 1989, p. 190-194, fig. 8; p. 191 & fig. 9, p. 192.
140 - R. de Vaux, 1952, p. 580, pl. XIV, fig. 12, 6.
141 - R. Amiran, 1986, p. 13, fig. 3.
142 - For the Sidon sherds see **Pl. 174, 5 6, 7**, p. 275.
143 - M. Dunand, 1954, p. 585, fig. 680 (n° 13130-13244), p. 719; fig. 855 (n° 14104), p. 789; fig. 896, (n° 15651), p. 1015; fig. 1122 (n° 18575-18815-18950); D. L. Esse, 1991, p. 112 & ann. 211.
144 - S. Mazzoni, 1987, p. 148.
145 - D. L. Esse, 1991, p. 112 ; S. Mazzoni, 1987, p. 237.
146 - R. Koeppel, 1940, pl. 97, 20, p. 84.
147 - D. L. Esse, 1991, p. 112-113.
148 - D. Kirkbride, 1973, pl. III, 4, 8.

could very well be another indication of the close parallel developments between Sidon and Byblos that has already been underlined in the excavation of the Late Chalcolithic/ EB I occupation at Dakerman near Sidon. Scholars[149] have noted at both sites a similarity in the environment, a similar method of burial as well as a similarity in the architectural tradition. The Chalcolithic Age in the Levant was a period in which agriculture and stockbreeding was basic to the economy.[150] Some aspects of Chalcolithic iconography had their origins in beliefs current in much earlier times, these being introduced during the 4th millennium BC.[151] This would account for regional differences for the same widely accepted range of symbols.

Jars and jugs from stratum 6 (**Pl. 110-121**) show remarkably little variation in form, a witness to the uninterrupted typological development from stratum 5. More jugs are decorated with incisions (**Pl. 110: 15**; **pl. 112: 2**) or an incised herringbone pattern (**Pl. 121: 8-10; Pl. 164**) at the junction of the shoulder and neck. This is often found in EB III contexts at Hesi, Lachish and Yarmuth.[152] The homeland of this type of decoration is, according to Holland,[153] to the west of the Upper Euphrates River Valley. One rim shape with a ridge on the rim (**Pl. 120b: 26-30**) found for the first time in stratum 5 is also present. Collared bevelled rim jars (**Pl. 115; 116; 118**) rolled out to form a bulb (**Pl. 119a-b**) with a drooping lower edge (**Pl. 120a: 1-22**) and everted rims (**Pl. 121**) are the most popular shape in this stratum. Jars **Pl. 121: 7** and **14** are comparable to similar jars from Ai.[154]

Hole-mouth jars are also very popular (**Pl. 122-140**). They show, as previously underlined, a large degree of continuity in the shapes of the rims[155] such as the plain rounded thickened rim (**Pl. 122**), and the bulbous rim (**Pl. 123-129**). There are also variant rim forms in this category, namely bevelled (**Pl. 130-133: 1, 2**) or grooved (**Pl. 133: 3-12**) and the folded-over rim (**Pl. 133: 13-14**). Some hole-mouth vessels have a heavy upright rounded, pointed or squared rim (**Pl. 134-139**) and a variant of this rim is the upright rim with a broad flange (**Pl. 138: 4-8**). The rim diameters range from 7 to 26 cm. The curved upper wall is straight in one case (**Pl. 138: 9**).

Punctuated vertical bands around the neck, a distinctive EB IV character in phase P at Tell Arqa,[156] is only found in one example (**Pl. 134: 7**).

3. Cooking pots (**Pl. 142**)

Eighteen pots that might have been used for cooking were found in this stratum.

4. Lamps

One bowl (**Pl. 141: 1**) was used as a lamp. It is a typical Early Bronze hemispherical bowl with round base and a blackened rim indicating its usage.[157] The Sidon lamp **Pl. 141: 2** displays a disc-like string-cut base, a characteristic which came into vogue in EB III A and proliferated throughout EB III.[158] Another late feature is the shape of the folded-over spouts.

5. Bases (**Pl. 143-160**)

Most of the bases found previously in stratum 5 are present.[159] The characteristic Syrian horizontal corrugation/ combing on jars becomes very popular (**Pl. 146: 2, 7, 14; Pl. 147: 6, 7, 10; Pl. 148: 2-9; Pl. 151-154: 1-4; Pl. 155: 9-10; Pl. 156: 4; Pl. 157a: 9; Pl. 157b:13-15; Pl. 158: 16; Pl. 159: 3, 9-11**). Sometimes the base is grooved, producing a sharp edge (**Pl. 159**). Stump and spike bases (**Pl. 160**) were also found in this stratum. Two semi-pointed stump bases whose style (**Pl. 160: 11, 12**) seems to be a local development influenced by EB II stump base jugs are, according to Hennessy,[160] almost a hallmark of EB III in Canaan.

6. Handles (**Pl. 161**)

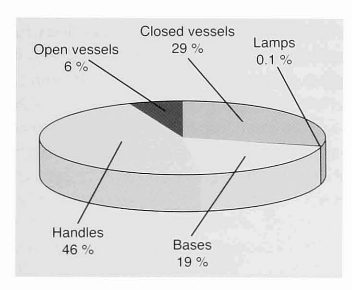
Four handles are incised with motifs into the clay before firing. Three handles are impressed with two small circles (**Pl. 162: 1-3**). The incised motif can be reduced to a simple pattern consisting of plain horizontal short slashes (**Pl. 162: 4**) or a net (**Pl. 162: 5**).

Lug handles (**Pl. 162: 7-13**) triangular in section and pierced (**Pl. 162, 7-10**) and three round handles (**Pl. 162, 11-13**) were found as well as loop handles with oval sections.

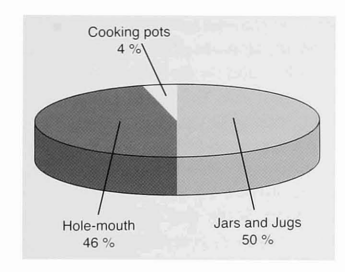
149 - K. Prag, 1986, p. 61; R. Saidah, 1979, p. 29-55; E. Braun, 1989, p. 15-16; E. Eisenberg, 1989, p. 38.
150 - P. de Miroschedji, 1971, p. 89; C. Epstein, 1978, p. 32-33.
151 - *Ibid.*, R. Amiran, 1989, p. 32-33.
152 - D. L. Esse, 1991, p. 69.
153 - T. A. Holland, 1980, p. 138.
154 - J. A. Callaway, 1972, fig. 37, 22, 23, 25, phase IV. EB II A.
155 - See discussion in str. 5, p. 48-49.
156 - J.-P. Thalmann, 2000, p. 46, fig. 36, 37, *phase P* (2400-2000).
157 - W. G. Dever & S. Richard, 1977, p. 3.
158 - J. A. Callaway, 1972, 257, phase EB III A; J. B. Hennessy, 1967, pl. IX, 91, 93, EB III B.
159 - See discussion in str. 5, p. 49.
160 - J. B. Hennessy, 1967, p. 22-23.

DIAGNOSTIC SHERDS

Bowls	85
Platter bowls/Trays	18
Jars and Jugs	228
Hole-mouth	209
Cooking pots	18
Bases	307
Lamps	2
Handles	740
Total	1607



A pie chart showing the division of the diagnostic sherds in stratum 6

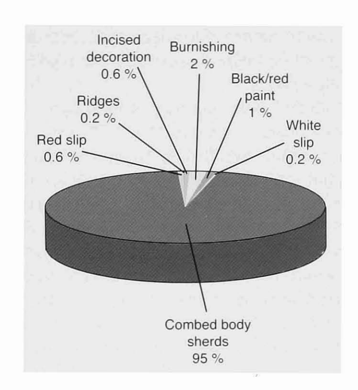


A pie chart showing the division of the closed vessels in stratum 6

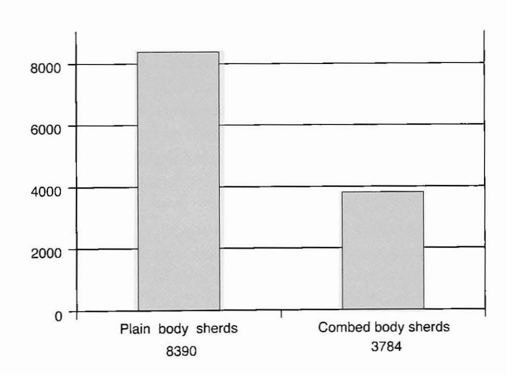
8. SURFACE FINISHING TECHNIQUES

A variety of decorative techniques appear, most of which were encountered in previous strata. Incised decoration is common (**Pl. 163**) with the herringbone motif at the intersection of neck and shoulder, (**Pl. 121: 8-10**) previously noted in stratum 5 and which now prevails (**Pl. 164**).[161] Paint is a common form of decoration. Its most typical application is black stripes (**Pl. 165: 4, 6-10**) applied in a net pattern (**Pl. 165:1-3**). The second form of painted decoration is a thin black watery wash applied unevenly in large horizontal black bands (**Pl. 165: 5, 11**). Burnished net pattern design is also found (**Pl. 165: 12-13**).

Some sherds were deliberately round, square or triangular shaped and may have been used for burnishing (**Pl. 166**).[162]



Surface finish and decoration of diagnostic and body sherds



SUMMARY OF TRENDS OBSERVED THROUGH STRATA 1 TO 6

– **V-shaped bowls** a distinctive early shape (stratum 1) found throughout until stratum 4.

161 - See also **Pl. 99: 13-14**.

162 - See also **Pl. 6: 15; 48: 13; 101**.

– **Hemispherical bowls** common throughout stratum 1 to 6 belong to a form too common to be of typological significance. The later specimens have an incurved rim. Painted decoration occurs in strata 3 and 4, and is replaced by a net painted design in stratum 5. Bowls with an out-rolled rim first found in stratum 3 gradually become more common, reaching a peak in stratum 5. In stratum 6 the same bowl shape is characterized by a thicker profile.
– **Small deep straight-sided bowls.** This type is found throughout stratum 6. However sherds that derive from this type of bowl are fragmentary and could belong to any type of bowl.
– **Fine deep bowls** appearing from stratum 3 onwards reach their peak in stratum 5.
– **The spouted bowl,** such bowls are found in each stratum from 3 to 6.
– **The carinated bowl** appears as a new type beginning in stratum 4 and continuing to be manufactured in strata 5 and 6. The outward curve of the angle of the rim tends to disappear and is replaced by a more vertical rim.
– **Platter-bowls and Trays.** The long history of the inverted bowl throughout Early Bronze Age is also apparent in Sidon. Platter-bowls with a vertical and an incurved rim are found from stratum 1 onwards. They become less common in stratum 6. Platter-bowls with "a rolled-in rim" are a distinctive vessel found in stratum 5.
– **Jars and Jugs.** This ceramic class has been divided into jars with necks and hole-mouth-jars.
The majority of the jars have remarkably little variation. Rims are flaring or everted, rolled outward or collared with a drooping lower edge. The collar rim is the favourite shape in stratum 5 and predominates in stratum 6. Jugs with a ridge on the rim are found mainly in strata 5 and 6 although one was found in stratum 3. Jars and jugs are very popular in stratum 3.
Hole-mouth jars are the favourite shapes in strata 5 and 6. Those with a short heavy upright rounded or pointed rim are found from stratum 3 onwards. One thickened and bevelled rim was found in stratum 4 and this type becomes more popular in strata 5 and 6. Variation in rims is a hallmark of strata 5 and 6, plain rounded rims, thickened and bulbous, bevelled or grooved are all found together.
– **Cooking pots**. Cooking pots are a difficult group to assess and classify. A variety of fabrics are used to make them, and there are a fair variety of profiles. What appears to be cooking pots is, on the whole, a small group. They might have been replaced by the hole-mouth jar in everyday life (see p. 39).
– **Lamps.** Small bowls are used as lamps from stratum 3 onwards. Fragmentary multiple-spouted lamps are found from stratum 3. One lamp with a disc-like string-cut base belongs to stratum 6.
– **Bases**. Most of the bases are flat. Sometimes the foot has been grooved, producing a sharp edge. Wide stump bases are found from stratum 1 onwards. One narrow stump based jug was found in stratum 3 with black slip and vertical burnishing. This type of jug is common in the so-called "foreign ware groups" of First Dynasty Egypt. The synchronization of EB II with the First Dynasty of Egypt is based on this type of foreign pottery found in Egypt. Flat string-cut bases are found from stratum 1 throughout stratum 3.
– **Handles**. Loop handles are the most common type found. Only three ledge handles of the pushed-up type, the most distinctive features of the early Bronze Age in Palestine, were found. Lug handles are found as early as stratum 3 and acquire a more geometric profile in stratum 6.

DISCUSSION

In summarizing the chronological and cultural significance of the Sidon pottery from stratum 1 to stratum 6, several points should be stressed:

Stratum 1 is the earliest stratum on bedrock in the area excavated at Sidon. As previously stated, some of the diagnostic sherds found on the bedrock are reminiscent of the Chalcolithic tradition. Yet, some of the pottery from this level appears to belong to the EB I. Among the significant indicators is the appearance of red and black slip ware and stump bases. Although combed ware was in use, its *floruit* occurs only from stratum 4.[163] This places the first occupation on Sidon's bedrock at the end of EB I. This designation more or less encompasses everything that is found between Ghassul IVA/B-Beersheba and EB II.

The excavation on Sidon's bedrock gives us a better understanding of the pattern of settlement. Until now it was thought that the earliest settlement was at the end of the 4th millennium BC at Dakerman,[164] a late Chalcolithic (= EB I) site situated 1 km south of the *Tell* of Sidon where our excavation took place. Nothing else was known about the earliest occupation. The discoveries on the bedrock of the Tell provide us with "the missing link". Here we have an unbroken stratigraphic sequence stretching from the end of

163 - See p. 65-67.

164 - R. Saïdah, 1979, p. 29-47.

EB I through to EB II and on into the fully developed EB III period. It may be that at some point during EB I the people of Dakerman moved to what is now the *Tell* of Sidon, closer to Sidon's harbour.[165]

The distinctive groups of pottery vessels found at Sidon on bedrock are highly reminiscent of the Chalcolithic tradition[166] with V-shaped bowls and a pedestal base.[167] Most bowl rims are simple and sharp, either straight or slightly everted. The composition of the assemblage is also indicative of Chalcolithic traditions. Most of the vessels found on bedrock are open vessels[168] whereas in the following level, on top of the beach sand, there is an increasingly large proportion of receptacles, storage vessels and containers for transporting liquids, i.e. jugs and especially jars. The difference in the composition of the clay is also relevant with a majority of vessels from stratum 1 belonging to fabric 5.[169]

It has become increasingly true that the distinction between late Chalcolithic and EB I pottery is not clear. A related problem concerns the link between the people of Early Bronze I and the preceding Late Chalcolithic period. Certain aspects of these cultures could be contemporary.[170]

The most interesting fact about the pottery as a whole is the large proportion of vessels decorated with red or black slip.[171] The grey[172] and red burnished pottery of Sidon is part of the general spread of burnished pottery throughout Syria and Anatolia in the 4th millennium. It is generally believed that the dark burnished ware traditions were already introduced to parts of Lebanon, Palestine and Jordan from Syria in the course of the Early Bronze Age I B. However, disparate shared attributes do not necessarily have a common source.[173] It has however been recognized that this ware has a northern distribution.[174] Sherds from a variety of burnished red or black-slipped platters are for Sidon at this stage an indicator in establishing a relative chronology. The very shallow carinated platter is found in both EB I and EB II (and even later at other sites). At Sidon however the reddish-orange slipped examples are found in EB III.

Red slip is rarely found on Late Chalcolithic vessels[175] and is more common in EB I. Platters have a wide distribution in the Early Bronze Age, all over the southern Levant and as far south as Arad.[176] Combing, a new method of decoration, makes its appearance at Sidon in EB II.[177] The narrow cylindrical shape of two bases designated as stump bases[178] (**Pl. 6: 3, 4**), which begin to appear in EB II, will become predominant in EB III.[179] Whatever the terminological preference[180] used by scholars this Chalcolithic/EB I "transitional phase" is at Sidon the beginning of the growth of urbanism.

Some of the ceramic material collected from the bedrock appears to belong to the second half of the 4th millennium and although some vessels relate to the Proto-Urban/EB I horizon, others suggest a connection with the "Ghassul-Beersheba" culture.

This archaeological horizon, which has been widely discussed under a variety of names (*Enéolithique supérieur*, Late Chalcolithic, Early Bronze I, Proto-Urban, and *pré-urbaine*) along with differing chronological and cultural hypotheses concerning the second half of the 4th millennium BC was previously thought to be chronologically different. The understanding today is that these horizons may have partly coexisted and may show regional differences.

165 - See p. 12-13.
166 - R. Amiran, 1969, p. 23.
167 - See R. Amiran, 1969, p. 58 for this type in an EB II context.
168 - G. Philip, 2001, p. 203-204.
169 - See p. 61.
170 - R. de Vaux, 1949, p. 137-138, K. M. Kenyon, 1954, p. 55. Other sites have revealed pottery reminiscent of the Chalcolithic with red and grey burnished wares; see for example H. de Contenson, 1961, p. 546-556. A. Ben-Tor, 1989, p. 42: "If we opt for the concept of EB I as continuing the local Pre-Ghassulian culture of Palestine ... we must assume that side by side and contemporary with Ghassulian Chalcolithic, there existed another population..."; E. Braun, 2000, p. 116: "The technological and morphological features exhibited in the ceramic assemblage, to the extent that they derive from Chalcolithic traditions, were obviously not mere spontaneous inventions, but are indicative of the chronological proximity of this phase to, and its continuity with, the earlier cultural horizon"
171 - See p. 41.
172 - "The grey ware of the late fourth and rarely third millennium BC is part of the dark burnished group which is mainly dominated by black, brown and to some extent red burnished wares", J. Yakar, 1989, p. 347.
173 - J. W. Hanbury-Tenison, 1986, p. 67.
174 - G. E. Wright, 1937, p. 42; K. M. Kenyon, 1960, p. 6 ; P. de Miroschedji, 1989b, (see note 7), p. 3; J. Yakar, 1989, p. 347: "the EB I Grey Ware (the so-called Esdraelon ware) appeared in Palestine at the time of new influx of sedentary and pastoralist groups from the general area referred to as the 'north' "; "In recent years the prevailing view on the origins of the EB I culture has ... swung away from one based almost entirely on the idea of the intrusion of new peoples ... towards a paradigm of indigenous development... The Grey Burnished Ware, a hallmark of the northern EB I culture..."; E. Braun, 1989, p. 10; P. de Miroschedji, 1989b, see note 7, p. 75: "The idea of tracing this type of pottery back to Anatolia has changed in recent years. This type of pottery could have been due to the reappearance in the north of Palestine of the tradition of Neolithic *Dark-Faced burnished Ware*"; P. de Miroschedji, 1971, p. 117, 121; also Y. Goren & S. Zuckermann, 2000, p. 166: "although GBW is evidently a local product of northern Israel it may reflect a northern (possibly Lebanese ?) influence in its decorative technique..."
175 - Y. Garfinkel, 1999, p. 273; R. Amiran, 1969, p. 542.
176 - See Y. Garfinkel, 1998, p. 194, on the differences between the Chalcolithic and the early Bronze Age platter; R. Amiran, 1969, p. 58.
177 - See p. 65-68; R. Amiran, 1969, p. 59.
178 - K. M. Kenyon & T. A. Holland, 1982, fig. 85, 10 EB.
179 - R. Amiran, 1969, p. 62.
180 - On the difficulty of using any of the terms Proto-Urban, Late Chalcolithic, *Chalcolithique supérieur*, Early Bronze age I as well as the problems of the subdivision of the EB I period, see J. W. Hanbury-Tenison, 1986, p. 6-32; P. de Miroschedji, 1989, p. 64-65; E. Braun, 1989, p. 7.

At Sidon strata 1 and 3 are separated stratigraphically and ceramically by the sand layer (**stratum 2**).

In Sidon there is a marked lack of well-known characteristic ceramic types in **stratum 3**. Some of the pottery found in this stratum is similar to the material found on the bedrock. The repertoire is however largely marked by innovations that differentiate this stratum from the pottery of the earlier settlement:

- Whereas in stratum 1 vessels with large openings were relatively common, in stratum 3 there is an increasingly large proportion of storage vessels and containers for transporting liquids, especially jars[181] and possibly a type of hole-mouth jar.
- There is a notable difference in the composition of the clay and more vessels are fired at higher temperature.
- There is a sharp increase in the number of sherds in the excavated area.
- Combing, which appears primarily as a technique for improving the quality of the ware, is found in a larger proportion.[182]
- Painted net and burnished pattern appears as well as line decoration.
- Burnished linear design is introduced.
- Cylinder seal impressions with a net design are introduced.
- One narrow stump based jug was found in stratum 3 with black slip and vertical burnishing (**Pl. 19: 4**). This type of jug is common in the so-called "foreign ware groups" of First Dynasty Egypt. The synchronization of EB II with the First Dynasty of Egypt is based on this type of foreign pottery found in Egypt.

All these elements make an early EB II date for stratum 3 plausible.[183]

The limited comparative study presented here places the occupation on Sidon's bedrock (stratum 1) at the end of EB I. This designation more or less encompasses EB I A/B/C, *Enéolithique supérieur*, *Enéolithique*, *Chalcolitique supérieur*, at Tell Farah, Proto-Urban A/B and EB I mixed with possible interstitial labeled PN at Jericho, "*Enéolithique ancien et récent*" at Byblos la "*civilisation pré-urbaine*" and so forth: roughly everything between Ghassul IV A/B-Beersheba and EB II.

Stratum 4. The EB II-III Transition

The pottery of stratum 4 exhibits certain traits already found in strata 1 to 3. Despite the introduction of new types there is an overall continuity between the pottery of stratum 3 and that of stratum 4.

Stratum 4 however is a period of transition as well as the beginning of the new ceramic tradition which dominates strata 5 and 6. The transition is gradual, and is notable by the following:

- Fabric 5 decreases. Fabrics 1 and 2 become predominant (see p. 61-62). A change also occurs in the surface treatment of vessels; the use of red slip diminishes.
- Even more characteristic is the preference for certain categories of vessels: fine deep bowls become very popular and continue into stratum 5.
- Carinated bowls appear at this level.
- A striking difference from the earlier level is an increase in jars/jugs and combed body sherds.
- Only one example of a hole-mouth jar with collared rim is found at this level. This type will become very popular in strata 5 and 6.
- The narrow stump base jug is found alongside the wide type of the earlier periods.
- Incised decoration becomes more popular.

The importance of this stratum lies in the fact that it clearly attests to the gradual nature of the transition between different archaeological phases. The diagnostic transformations of the ceramic types and the contemporary appearance of the new shapes described above may be related to a gradual cultural change as at Jericho and Ai,[184] the material of stratum 4 shows that the repertoire of Sidon's EB III is directly related to local EB II pottery.[185]

Stratum 5

A serious problem remains in ascertaining a more accurate date for certain ceramic forms. The overwhelming continuity in EB ceramics has made the dividing line between EB II and EB III difficult.[186] In Palestine there is a marked lack of ceramic type-fossils for differentiating the EB II and EB III periods. The differentiation appears to be based largely on the appearance of light-faced painted ware in the earlier period and Khirbet Kerak ware (KKW) in the later EB III. The distinction between EB II and EB III in Palestine

181 - A. Ben-Tor, 1986, p. 5; see p. 44.

182 - See p. 44, 64-67.

183 - H. Joffe, 1993, 66: "to an uncomfortable extent, the ceramic chronology of EB II must be defined by what it is not, that is to say it must be bracketed by the ceramics of the preceding and succeeding periods..."

184 - R. Greenberg & N. Porat, 1996, p. 13; G. Philip & D. Baird, 2000, p. 7.

185 - G. Philip & D. Baird, 2000, p. 19: "In the North [of Palestine] the recognition of this transition depends ultimately upon the disappearance of Metallic ware, and the appearance of Khirbet Kerak Ware... In the South, P. de Miroschedji sees a clear break between EB II and III..."

186 - P. de Miroschedji, 1989a, p. 73-75; H. Joffe, 1993, p. 66-67.

has continued to rely on the presence or absence of KKW that remains the primary defining feature of the EB III.[187]

Some of the ceramic forms found at Sidon do not fit the classical pattern of Palestinian EB (namely the scarcity of ledge-handles or the particular shapes of rims in the hole-mouth jars for example).

Without the hallmarks of EB II or those of EB III such as those distinct features of Khirbet Kerak ware, we end up drifting between EB II and III. Albright's sequence of three phases, namely before the introduction of Khirbet Kerak ware, during the domination of this ware and after its decline is, according to many scholars, no longer precise enough,[188] and at Sidon is irrelevant especially as we have not yet found any Khirbet Kerak ware at all.

With this in mind, can diagnostic sherds lead us to a closer dating of our levels?

Paint and burnishing are the most common form of decoration. They are found on jars with band-slip or net technique in a style that has been considered for almost half a century to be a diagnostic feature of the northern culture of Palestine during EB I[189] and II.[190] Yet some pottery from the repertoire at Sidon is representative of EB III. Among the significant indicators are rolled-in bowl rims, the neck-handled jug as well as stump and spike bases. Of note are the bases with horizontal combing similar to those found on the Syro-Palestinian coast in EB III. Although combed ware was in use throughout the EB, its *floruit* occurred during EB III.[191] A striking difference from the earlier level is the introduction of the apparently mass produced hole-mouth jar, a hallmark of the Early Bronze Age III at Sidon. This main change reflects a move towards more economic uniformity of manufacture, linked to mass production.[192] Furthermore these hole-mouth jars are in their style a reflection of a Syrian influence.

Stratum 6

Stratum 6 is an intermediate horizon. It follows an EB III A stratum and precedes a Middle Bronze Age stratum (**Pl. 16, section 1, p. 38**). This horizon has been called MB I,[193] EB IV,[194] Intermediate Early Bronze-Middle Bronze Age and is in some regions recognized as an independent EB IV[195] sub-phase distinct from the previous EB III. In Sidon, the stylistic transformation of stratum 6 does not demarcate it from the preceding period and types of vessels are almost the same. However there are some changes: some bowls are characterized by a thicker profile; one jar is comparable to Egypt's Vth-IVth Dynasties (2613-2345 BC); a ram's head juglet appears at a time dated in Byblos to the VIth Dynasty (2260 BC); a spouted lamp with its EB III disc base and well folded spout is characteristic of the end of the Early Bronze Age period; the appearance at this stage of the human being on the seal impressions is an indication of a more sophisticated society.

Sites in southern Palestine, at Tell Yarmouth, Tell el-Hesi and even the bulk of the pottery of Tell Beit Mirsim J and tells of central Palestine have however not shown EB IV[196] levels.

It is a widely held view that at the end of the 3rd millennium in Palestine, i.e. EB IV, there was a rural and pastoral nomadic pattern of social organization,[197] which evolved as a consequence of the decline of urbanism.[198] However contemporary developments further north such as Ebla in Syria, are characterized by great technological development.[199] This boom is tied to a general improvement in the economic conditions of the region and in ceramic production and is an expression of a prosperous and sophisticated urban culture.[200]

Coincidentally at Sidon, an increase in body sherds[201] from this stratum as well as the production of larger standardized vessels with a functional purpose instead of more elaborate delicate vessels is also an indication of urbanization reflecting a move towards more economic uniformity of manufacture, linked to mass production that has culminated in stratum 6.

The occupation layers of the beginning of the Early Bronze Age – levels 1 and 2 – yielded few animal bones,

187 - T. P. Harrison, 2000, p. 347.
188 - J. A. Callaway, 1978, p. 46.
189 - G. E. Wright, 1937, p. 44-45.
190 - R. Amiran, 1969, p. 41-42.
191 - V. Fargo, 1979, p. 148.
192 - G. Philip & D. Baird, 2000, p. 19: "These observations stress the degree to which typological change can result from inter-related sets of manufacturing practices, as opposed to the traditional assumption of cultural identity."
193 - W. F. Albright, 1932, p. 8-18.
194 - G. E. Wright, 1937, p. 8; G. Palumbo, 2001, p. 238.
195 - See S. Richard, 1980, p. 6-8 on the problem of terminology; W. G. Dever, 1980, p. 35: "EB IV terminology for both former EB IV and MB I should now be adopted – with the revision, however, that the three resultant phases should be designated EB IV A-C"; W. G. Dever, 1998, p. 282, EB IV period in Palestine (2350-2000 BC), a non-urban interlude between the first urban horizon in the third millennium, Early Bronze I-III, and an urban renaissance in the Middle Bronze Age.
196 - W. G. Dever, 1980, p. 38, 42.
197 - W. G. Dever, 1998, p. 295.
198 - J. Tubb, 1983, p. 57: "the situation in the north of the country may have been slightly different. The factors contributing to the decline of urban life may well have been less sharply felt."; G. Palumbo, 2001, p. 262: "far from being a dark Age, the EB IV emerges... as a period in which its system of specialized local production and mixed agricultural strategy, as well as technological innovations,... served to reinforce the role of the rural component of the society, and laid the basis for the development of a renewed and stronger urban culture."
199 - G. Palumbo, 2001, p. 261, "the region was probably in the sphere of influence of urban centers in central and northern Syria which were flourishing during the period."
200 - S. Mazzoni, 1985a, p. 12-13.
201 - See p. 64-65.

and levels 3 and 4 yielded small samples; level 5 however, and above all level 6 produced a far larger number of skeletal remains. Wild animals are very well represented, although the domesticated species – sheep, goat and cattle – account for over fifty per cent of the remains. Pigs were also domesticated. Remains of dogs and equids are very infrequent. Mesopotamian fallow deer, wild boar, aurochs and hippopotamus were all hunted, as were large carnivores such as lion and bear (see Vila in this volume p. 301).

– Most of the remains of hippopotami were found in level 6. At least three individuals are represented in the assemblage of level 6. The signs of butchering on their remains are numerous. They include cutmarks made by knives and marks made by chopping with axes. There can be no doubt at all that the hippopotami were quartered, chopped, cut into pieces, skinned and eaten. The absence of the skulls suggests that they were removed and processed elsewhere, perhaps in an industrial area.

– The evidence from Sidon is surprising, as hunting was not a habitual activity among the inhabitants of Early Bronze Age sites in the Levant. Those cities and villages of this period for which evidence of animal husbandry are available, mostly sites in the southern Levant, obtained their meat mainly from the rearing of domestic animals. The part played by wild animals in the economy is in general nonexistent: they account for about 1-2% of the animal remains except on two sites – Tel Dan and Tell Gat – where their remains do not exceed 10-12% of the total. Thus, until now in view of the available published data, any accounts of hunting on Levantine sites of the Early Bronze Age were purely anecdotal: hunting played no part in supplying food.

The way in which animals were exploited in Sidon in the Early Bronze Age is thus a phenomenon particular to this site. The characteristics of the chase, however, give pause for reflection. The game selected is uncharacteristic of hunters looking only for meat. If that had been the object, they would not have attacked the most dangerous animals, such as the males of redoubtable species, but would rather have pursued the females of boar and deer.

One of the reasons for this hunt might therefore be ideological rather than economic. Vila[202] suggests that the hunters were interested not only in the quantity of the meat, but in the quality of the game itself. This could imply that the hunt was about prestige, reflecting the existence of a separate social group of specialist hunters. The greater availability of game at Sidon represents along with agriculture another way of subsistence and may well reflect increased wealth. Sidon is a coastal city fed by mountain streams and close to what would have been forested hills unlike the more arid regions further south.

The last quarter of the 3rd millennium that has in terms of terminology and chronology been so controversial appears at Sidon as a continuum[203] and an extension of the earlier material at Sidon in stratum 5, a period of prosperity that resembles the Syrian EB IV pattern.

The reason that stratum 6 has not been called EB IV but EB III B is that there is no distinct change in pottery style.

Stratum 6 at Sidon should be placed within the EB III period reflecting a late EB III B[204] horizon, following the same principle as Tell Beit Mirsim Stratum J,[205] the late EB III tombs of Lachish and Jericho and the late EB III phases at Ai and Jericho.[206]

Stratum 6 is not seen as a period of decreased economic activity,[207] neither is it a sharp break preceding the beginning of the MB II A culture. The tendency that emerges is that of steady development evolving from within. A degree of flexibility must be admitted which takes into account substantial chronological overlaps… allowing the contemporaneousness of EB III/EB IV and EB IV/MB I/II A types within the same chronological horizon".[208]

202 - E. Vila in this volume p. 301.
203 - P. de Miroschedji, 1989, p. 72, "…souligne le caractère essentiellement progressif des transformations qui ont affecté la civilisation palestinienne."
204 - P. Gerstenblith, 1980, p. 65: "Albright's MB II A and Kenyon's MB I… and Dever's emphasis on the break between MB I and MB II A"; W. G. Dever, 1980, p. 38-39: "adopting the EB IV A-C terminology… but maintaining the old MB I terminology can only be misleading."
205 - W. G. Dever & S. Richard, 1977, p. 1-2.
206 - A. Kempinski, 1983, p. 239.
207 - W. G. Dever, 1980, p. 55-58.
208 - J. Tubb, 1983, p. 56.

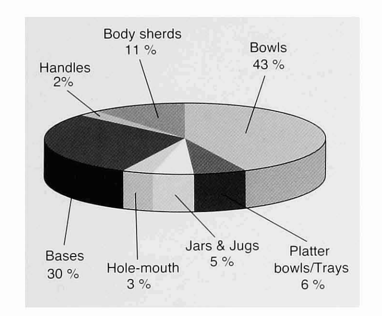
FABRICS

Stratum 1

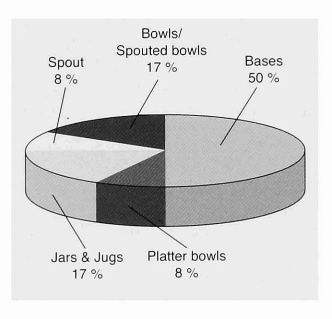
	Bowls	Platter bowls/ Trays	Jars & Jugs	Hole-mouth	Bases	Handles	Body sherds	Total
Fabric 1	4	2	2		5		4	17
Fabric 2	2	1		1	6		3	13
Fabric 5	30	2	2	2	14	2	2	54
Total	36	5	4	3	25	2	9	84
%	43	6	5	3	30	2	11	

Stratum 2

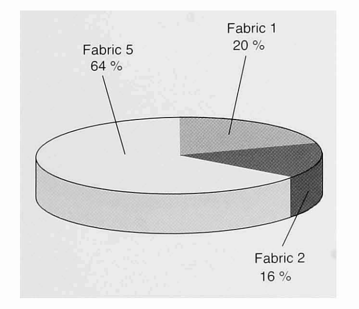
	Bowls/ Spouted bowls	Platter bowls	Jars & Jugs	Spout	Bases	Total
Fabric 1		1		-	2	3
Fabric 2				1	2	3
Fabric 5	2		2		2	6
Total	2	1	2	1	6	12
%	17	8	17	8	50	



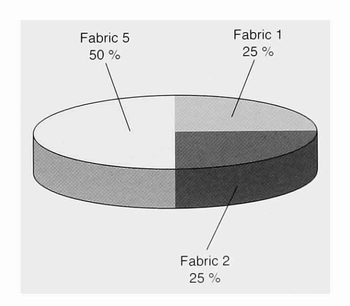
A pie chart showing the division of diagnostic sherds in pl. 1 - 6



A pie chart showing the division of diagnostic sherds in pl. 7



A pie chart showing the division of fabrics in stratum 1



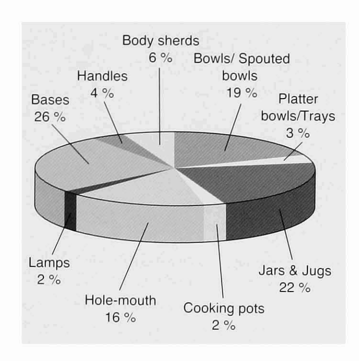
A pie chart showing the division of fabrics in stratum 2

STRATUM 3

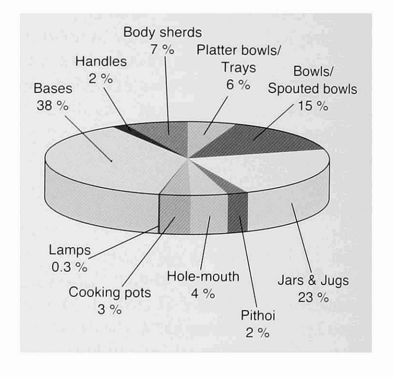
	Bowls/Spouted bowls	Platter bowls/Trays	Jars & Jugs	Hole-mouth	Cooking Pots	Lamps	Bases	Handles	Body sherds	Total
Fabric 1	14	3	16	7		2	23	3	5	73
Fabric 2	8	1	16	14	3	1	11		4-	58
Fabric 3			2	4	1			1	1	8
Fabric 5	9	2	3	1			9	3	10	28
Total	31	6	37	26	4	3	43	7	6	167
%	19	3	22	16	2	2	26	4		

STRATUM 4

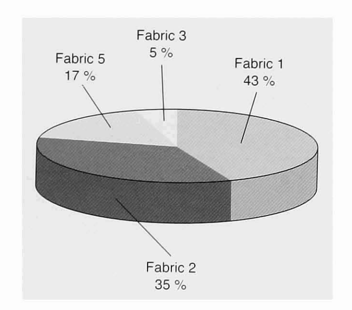
	Bowls/Spouted bowls	Platter bowls/Trays	Jars & Jugs	Pithoi	Hole-mouth	Cooking pots	Lamps	Bases	Handles	Body sherds	Total
Fabric 1	18	13	31	5	2	3	1	83	3	17	176
Fabric 2	24	3	32	4	9	1		34	4	6	117
Fabric 3			12	-	3	7		1		1	24
Fabric 5	12	4	6		1			17		2	42
Total	54	20	81	9	15	11	1	135	7	26	359
%*	15	6	23	2	4	3	0,3	38	2	7	



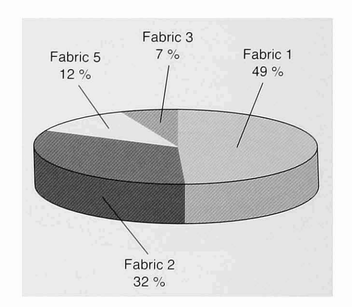
A pie chart showing the division of diagnostic sherds in pl. 8 - 20



A pie chart showing the division of diagnostic sherds in pl. 21 - 48



A pie chart showing the division of fabrics in stratum 3

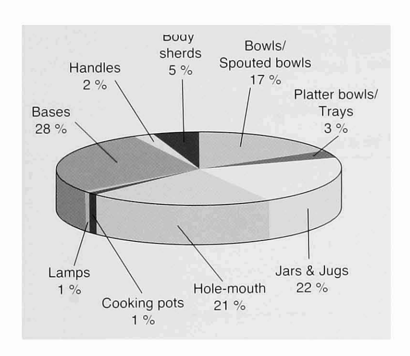


A pie chart showing the division of fabrics in stratum 4

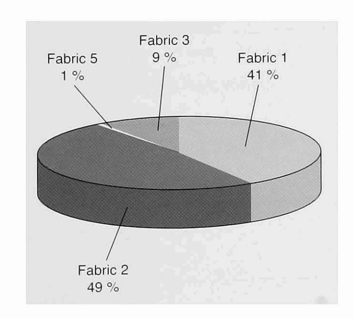
* One lamp accounts for 0.3% and all the remaining percentages were rounded up. This is why the total percentage is 100.3.

STRATUM 5

	Bowls/Spouted bowls	Platter bowls/ Trays	Jars & Jugs	Hole-mouth	Cooking pots	Lamps	Bases	Handles	Body sherds	Total
Fabric 1	42	11	69	13		2	122	4	27	290
Fabric 2	71	11	71	91	4	1	72	11	9	341
Fabric 3	4		10	43	4	1		1		63
Fabric 5	3						1			4
Total	120	22	150	147	8	4	195	16	36	698
%	17	3	22	21	1	1	28	2	5	



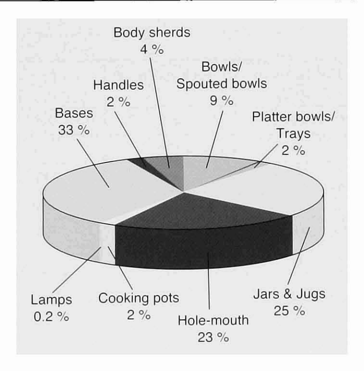
A pie chart showing the division of diagnostic sherds in pl. 49 - 101



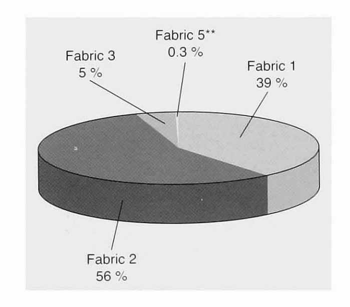
A pie chart showing the division of fabrics in stratum 5

STRATUM 6

	Bowls/Spouted bowls	Platter bowls	Jars & Jugs	Hole-mouth	Cooking pots	Lamps	Bases	Handles	Body sherds	Total
Fabric 1	40	10	101	14	1	1	161	9	27	364
Fabric 2	43	8	118	172	7	1	144	10	14	517
Fabric 3	1		9	22	10		1	1		44
Fabric 5	1			1			1			3
Total	85	18	228	209	18	2	307	20	41	928
%*	9	2	25	23	2	0.2	33	2	4	



A pie chart showing the division of diagnostic sherds in pl. 102 - 166



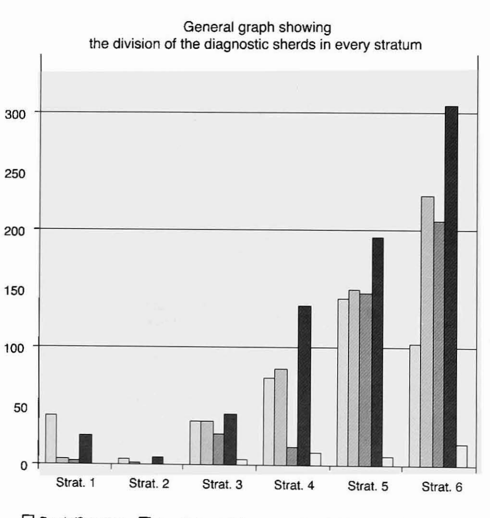
A pie chart showing the division of fabrics in stratum 6

* Two lamps accounts for 0.2% and all the remaining percentages were rounded up. This is why the total percentage is 100.2.
** Fabric 5 accounts for 0.3% and all the remaining percentages were rounded up. This is why the total percentage is 100.3.

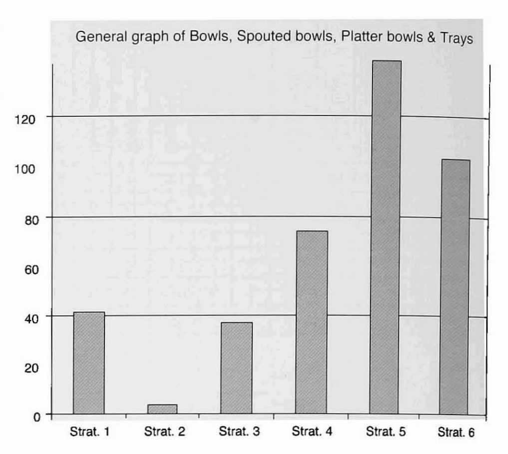
CONCLUSION

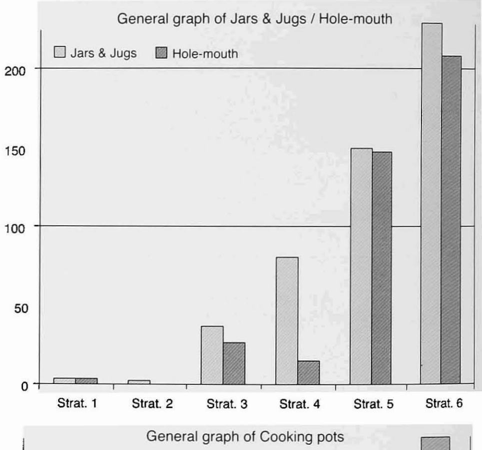
	Bowls/ Spouted bowls/ Platter bowls/ Trays	Jars & Jugs	Hole-mouth	Bases	Cooking pots	Misc.	Handles	Total
Strat. 1	41	4	3	25			13	86
Strat. 2	4	2		6			6	18
Strat. 3	37	37	26	43	4	3	32	182
Strat. 4	74	81	15	135	11	10	129	455
Strat. 5	142	150	147	195	8	4	246	892
Strat. 6	103	228	209	307	18	2	740	1607
Total	401	502	400	711	41	19	1166	3240

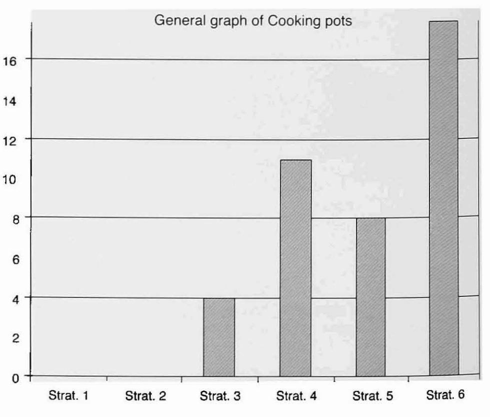
	Combed body sherds	Plain body sherds	Total
Strat. 1	12	407	419
Strat. 2	30	125	155
Strat. 3	783	1650	2433
Strat. 4	2148	4060	6208
Strat. 5	2948	3684	6632
Strat. 6	3784	8390	12174
Total	9705	18316	28021

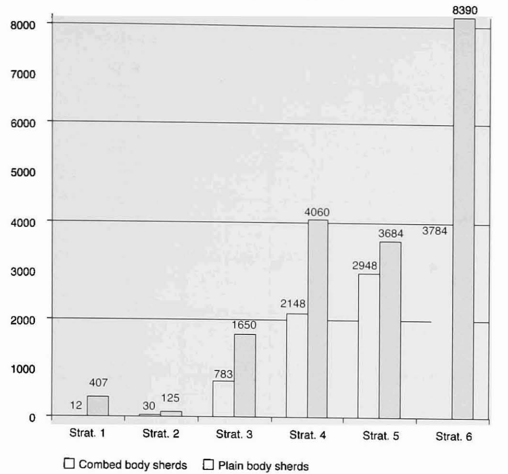












STATISTICS

Excavated area	Bowls/ Platter bowls/ Trays m²	Jars & Jugs m²	Hole-mouth m²	Cooking pots m²	Bases m²	Handles m²	Misc. m²	Total m²
Strat. 1 m² : 47.37	0.87	0.08	0.06	-	0.53	0.27	-	1.81
Strat. 2 m² : 47.37	0.08	0.04	-	-	0.13	0.13	-	0.38
Strat. 3 m² : 47.37	0.78	0.78	0.55	0.08	0.91	0.68	0.06	3.84
Strat. 4 m² : 47.37	1.56	1.71	0.32	0.23	2.85	2.72	0.21	9.60
Strat. 5 m² : 51.49	2.76	2.91	2.85	0.16	3.79	4.78	0.08	17.33
Strat. 6 m² : 80.49	1.28	2.83	2.58	0.22	3.81	9.19	0.02	19.97

Diagnostic sherds by m²

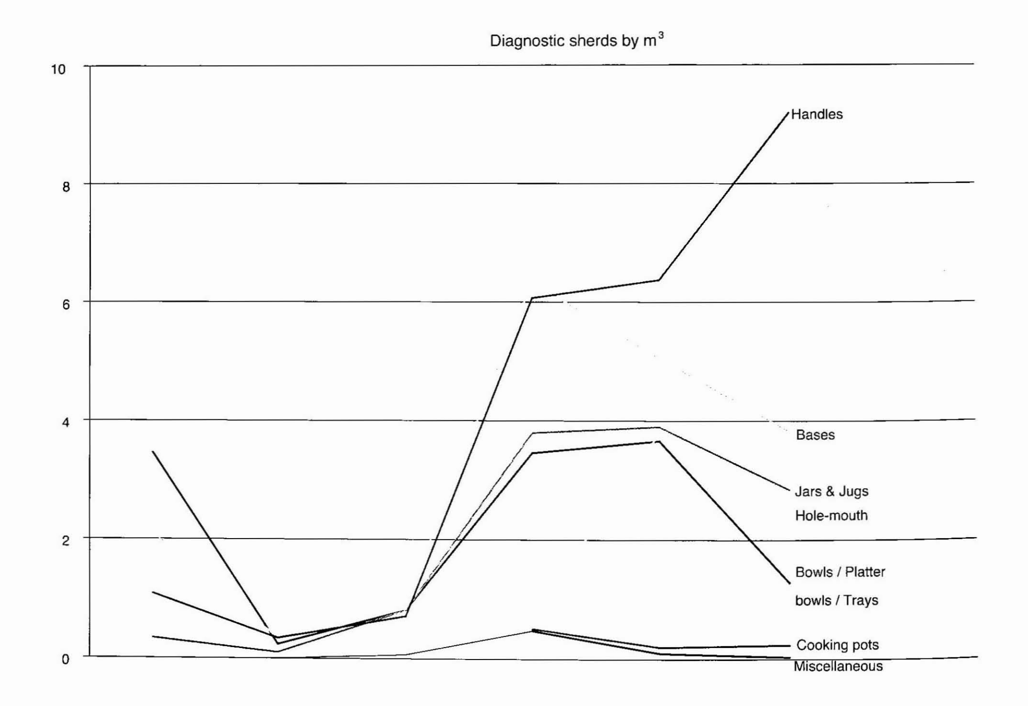
Handles
Bases
Jars & Jugs
Hole-mouth
Bowls / Platter bowls / Trays
Cooking pots
Miscellaneous

8 7 6 5 4 3 2 1 0

Strat. 1 Strat. 2 Strat. 3 Strat. 4 Strat. 5 Strat. 6

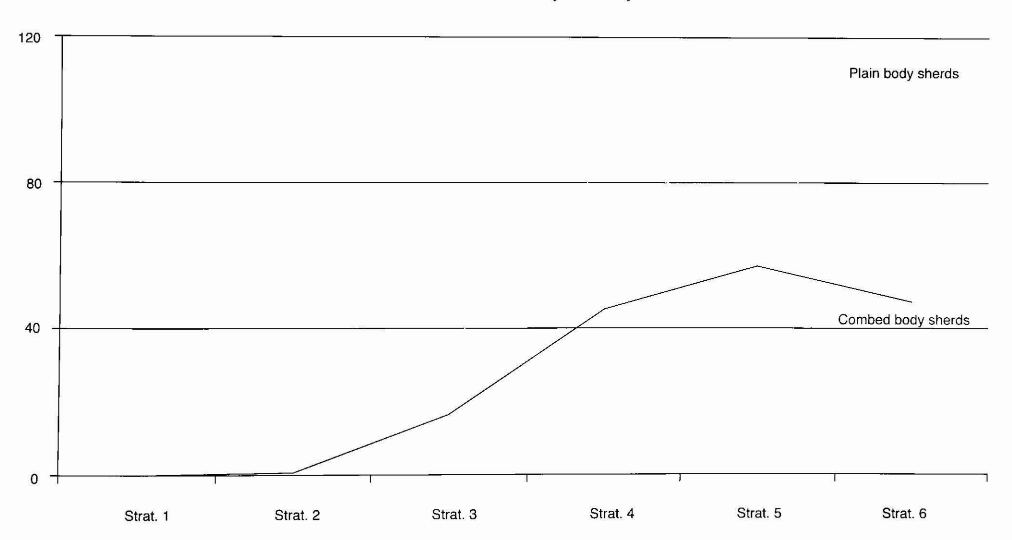
Excavated area	Bowls/ Platter bowls/ Trays m^3	Jars & Jugs m^3	Hole-mouth m^3	Cooking pots m^3	Bases m^3	Handles m^3	Misc. m^3	Total m^3
Strat. 1 m^2 : 47.37 Depth of stratum 0.25 m m^3 : 11.84	3.46	0.33	0.25	-	2.11	1.09	-	7.26
Strat. 2 m^2 : 47.37 Depth of stratum 0.36 m m^3 : 17.05	0.23	0.11	-	-	0.35	0.35	-	1.05
Strat. 3 m^2 : 47.37 Depth of stratum 0.95 m m^3 : 45.01	0.82	0.82	0.57	0.08	0.95	0.71	0.06	4.04

Excavated area	Bowls/ Platter bowls/ Trays m^3	Jars & Jugs m^3	Hole-mouth m^3	Cooking pots m^3	Bases m^3	Handles m^3	Misc. m^3	Total m^3
Strat. 4 m^2 : 47.37 Depth of stratum 0.45 m m^3 : 21.31	3.47	3.80	0.70	0.51	6.33	6.05	0.46	21.35
Strat. 5 m^2 : 51.49 Depth of stratum 0.75 m m^3 : 38.61	3.67	3.88	3.80	0.20	5.05	6.37	0.10	23.10
Strat. 6 m^2 : 80.49 Depth of stratum 1 m m^3 : 80.49	1.27	2.83	2.59	0.22	3.81	9.19	0.02	19.96



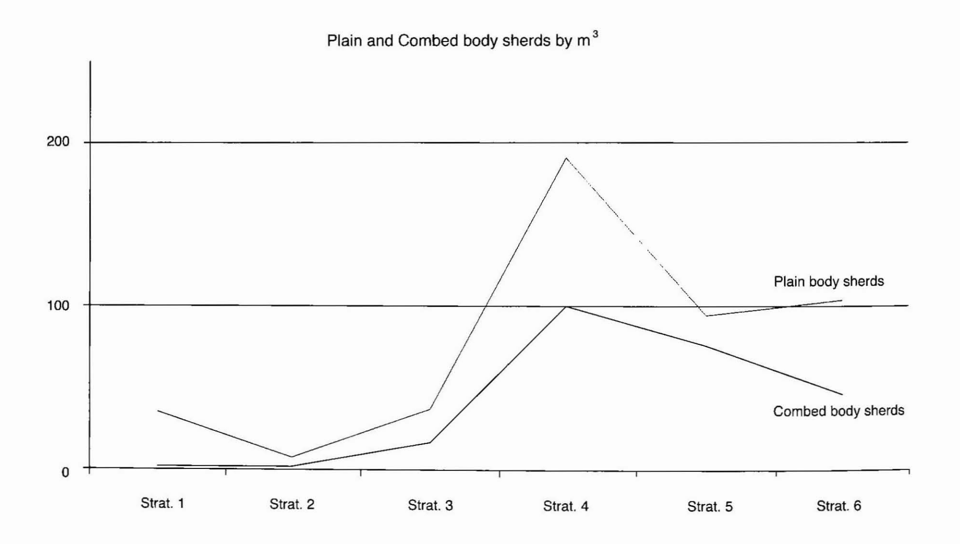
Excavated area	Combed body sherds m^2	Plain body sherds m^2	Total m^2
Strat. 1 m^2 : 47.37 Depth of stratum: 0.25 m m^3 : 11.84	0.25	8.59	8.84
Strat. 2 m^2 : 47.37 Depth of stratum: 0.36 m m^3 : 17.05	0.63	2.63	3.27
Strat. 3 m^2 : 47.37 Depth of stratum: 0.95 m m^3 : 45.01	16.53	34.83	51.36

Excavated area	Combed body sherds m^2	Plain body sherds m^2	Total m^2
Strat. 4 m^2 : 47.37 Depth of stratum: 0.45 m m^3 : 21.31	45.34	85.70	131.05
Strat. 5 m^2 : 51.49 Depth of stratum: 0.75 m m^3 : 38.61	57.25	71.54	128.80
Strat. 6 m^2 : 80.49 Depth of stratum: 1 m m^3 · 80.49	47.01	104.23	151.24



Excavated area	Combed body sherds m³	Plain body sherds m³	Total m³
Strat. 1 m² : 47.37 Depth of stratum: 0.25 m m³ : 11.84	1.01	34.37	35.38
Strat. 2 m² : 47.37 Depth of stratum: 0.36 m m³ : 17.05	1.75	7.33	9.09
Strat. 3 m² : 47.37 Depth of stratum: 0.95 m m³ : 45.01	17.39	36.65	54.05

Excavated area	Combed body sherds m³	Plain body sherds m³	Total m³
Strat. 4 m² : 47.37 Depth of stratum: 0.45 m m³ : 21.31	100.79	190.52	291.31
Strat. 5 m² 51.49 Depth of stratum: 0.75 m m³ : 38.61	76.35	95.41	171.76
Strat. 6 m² · 80.49 Depth of stratum: 1 m m³ · 80.49	47.01	104.23	151.24



Chapter III. The Pottery : Chronology and Conclusion

There is a gradual development in the pottery types and surface finishing techniques in strata 1 to 6, and an overall continuity in the basic ceramic repertoire. The occupational history of the site shows no evidence of interruption apart from the sand layer sealing stratum 1. Bowls comprise the single largest category of vessels in stratum 1. This will be replaced from stratum 4 onwards by closed vessels. In stratum 3 the storage jars, with rim diameters ranging between 16 and 24 cm are the most numerous of the large vessels found.

The excavation at Sidon provides stratigraphic sequences that have allowed the establishment of detailed ceramic indicators for:

- Chalcolithic/EB I and EB II
- EB II A and B
- EB II- III
- EB III A and B

Character of the transition between Chalcolithic/EB I and EB II	
Chalcolithic/EB I	EB II
Changes in fabrics & manufacture. Soft fabrics.	Improvement in firing with soft fabrics still popular.
Change in the surface treatment. Red and black slip for open vessels.	Majority of red slip for open vessels, painted net motif and pattern burnishing for small vessels.
Change in vessel shapes. Open vessels for eating and drinking.	Closed vessels for storage and transport.

Character of the transition between EB II and EB III	
EB II	EB III
Changes in fabrics & manufacture. Softer fabrics, deficient firing.	Superior manufacture & firing.
Change in the surface treatment. Majority of red slip for open vessels, painted net motif & pattern burnishing for small vessels.	Combing predominates.
Change in vessel shapes. Thin walls, smaller vessels. Variation.	Thicker walls, larger vessels.[1] Standardization[2].

Within the summary of the major characteristics of the Early Bronze Age strata of area 1b, evidence has been presented on which can be based a tentative ceramic chronology for each of the respective strata. The pottery published here represents a small sample of the entire ceramic repertoire and further excavations will supplement and may even modify this framework. On the basis of the available data the Early Bronze Age ceramic sequence of Sidon may be summarized as follows:

- Stratum 1: the earliest Chalcolithic/EB I horizon at Sidon.
- Stratum 2: the sand layer sealing stratum 1.
- Stratum 3: the first EB II (A) level.
- Stratum 4: the late EB II (B) level and the transition to EB III.
- Stratum 5: the first EB III (A) level.
- Stratum 6: the late EB III (B) level and the transition to the Middle Bronze Age horizon.

1 - See R. Greenberg, 2000, p. 191, 193, 197.

2 - P. de Miroschedji, 2000, p. 320.

Sidon		Egypt	Byblos
Strat. 1	Chalcolithic/EB I		
Strat. 2	EB I/ EB II	I[st] Dynasty	KI
Strat. 3	EB II A		
Strat. 4	EB II B		
Strat. 5	EB III A	V[th]-IV[th] Dynasties	
Strat. 6	EB III B		

Absolute chronology remains uncertain as it is currently tied to comparisons with Egypt and not to radiocarbon dates. We have dated the beginning of EB II to 3000 BC on the basis of Egyptian parallels.[3] EB III is dated around 2700 BC also on the basis of Egyptian parallels[4] and the end of the Early Bronze Age around 2350/2300 BC.

The analysis of EB material from Sidon has demonstrated that although some of this assemblage is closely related to EB deposits in Palestine it is also in close parentage to coastal and inland deposits in Syria.[5] Some of the vessels have no parallels even at other sites in the Lebanon. Apart from Byblos, the EB III/IV deposits at Tell Arqa, levels 16 and 15 (end of the 3[rd] Millennium), Beirut and Tyre (strata XXVII to XXI and strata XX and XIX which belong to the Intermediate Early Bronze/Middle Bronze), the Early Bronze Age remains very poorly represented. The Sidon excavation has provided representative samples from the end of the 4[th] millennium through the 3[rd] millennium BC that imply a cultural continuum both in ceramic tradition and in stratigraphy, with the exception of a possible break in stratum 2.

Much work still remains to be done to establish a definite ceramic chronology for the Early Bronze Age in the Lebanon. The present study, however, makes available a typological outline and relative ceramic chronology which may serve as a guideline for a greater understanding of the links between regional groups from both Syria and Palestine.



*Photo 1 - Bowl S/2343, burnished interior, stratum 3 (***Pl. 8: 15***).*

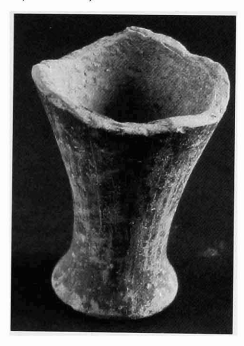


*Photo 2 - Base of juglet covered in black slip S/ 16008, stratum 3 (***Pl. 19: 4***).*



*Photo 3 - Base S/1592, stratum 3 (***Pl. 19: 5***).*

3 - See p. 44.
4 - J. B. Hennessy, 1967, p. 88-89; P. de Miroschedji, 2000, p. 339.
5 - S. Richard, 1980, p. 22-26: "The presence of Syrian elements in the EB IV repertoire, coupled with the evidence for northward extension of Palestinian-Transjordanian culture beyond its usual geographical sphere, would seem to witness cultural interaction with Syria on the EB III-EB IV horizon."



Photo 4 - Lamp S/1622, stratum 3 (**Pl. 15: 7**).

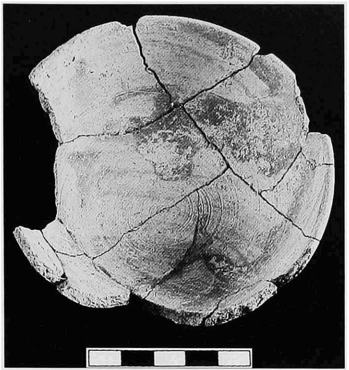


Photo 5 - Bowl S/1552, red slip interior, stratum 4 (**Pl. 22: 5**).

Photo 6 - Bowl S/1552, red slip interior, stratum 4 (**Pl. 22: 5**).

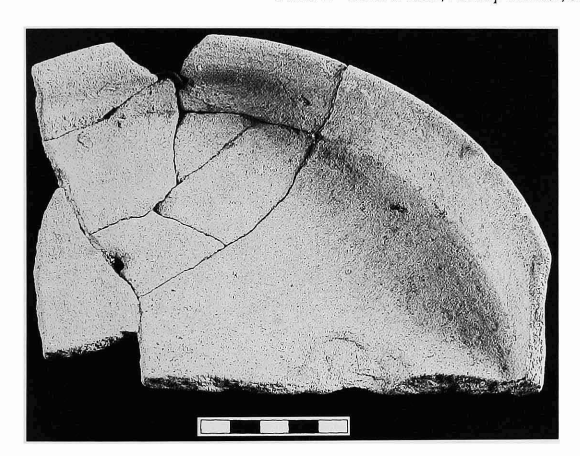


Photo 7 - Carinated bowl S/1557, stratum 4 (**Pl. 23: 10**).



Photo 8 - Spouted bowl S/2991, stratum 4 (**Pl. 24: 16**).



Photo 9 - Jug S/17053, burnished vertically, stratum 4 (**Pl. 28: 18**).



Photo 10 - Body sherd S/4272, ridge around the neck and black net painting, stratum 4 (**Pl. 47: 11**).



*Photo 11 - Bowl S/1686, black paint interior, stratum 4 (***Pl. 22: 3***).*



*Photo 12 - Bowl S/2863, burnished interior, stratum 5 (***Pl. 49: 18***).*



*Photo 13 - Spouted bowl S/ 17061, stratum 5 (***Pl. 55: 16***).*

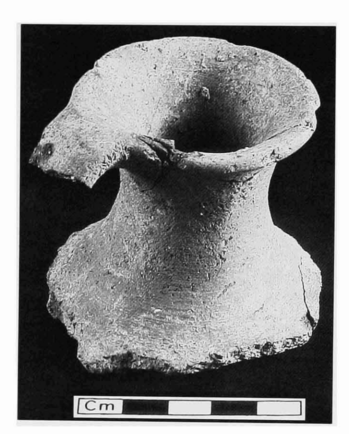


*Photo 14 - Jug S/1587, stratum 5 (***Pl. 58: 1***).*

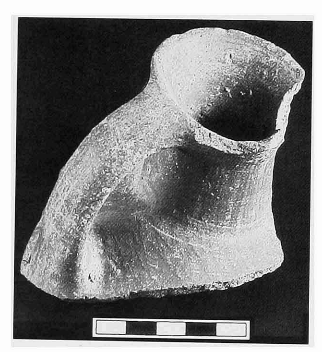


*Photo 15 - Jug S/15712, vertical burnishing on the neck, net burnishing on the shoulder, stratum 5 (***Pl. 58: 2***).*

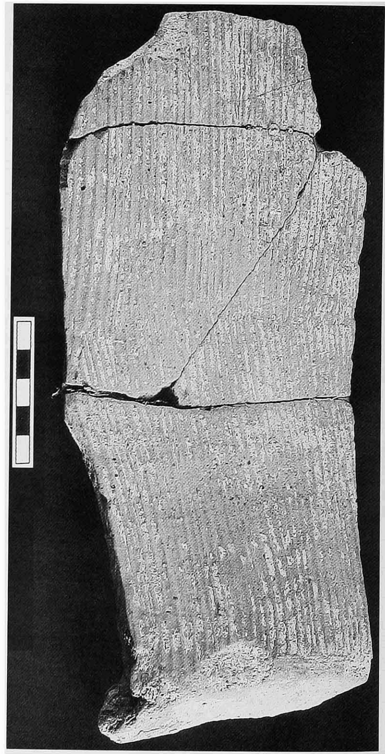


*Photo 16 - Base S/17065, vertical combing, stratum 5 (***Pl. 90: 1***).*



*Photo 17 - Body sherd S/3950, V-shaped incisions, stratum 5 (***Pl. 99: 15***).*



*Photo 18 - Handle S/11401 with two incised V motifs, stratum 5 (***Pl. 98: 14***).*

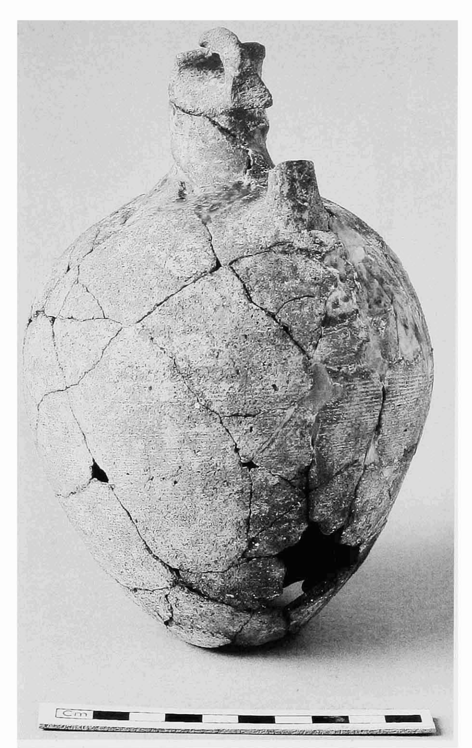
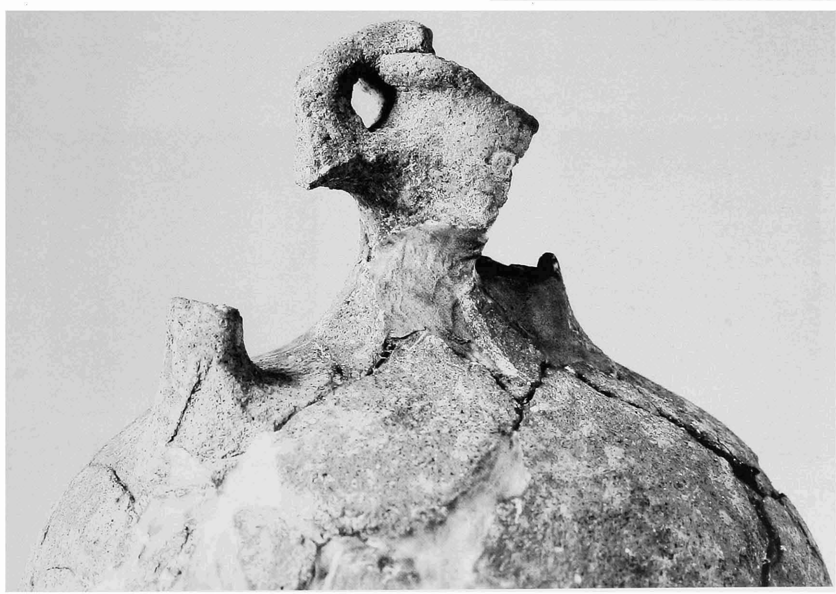


*Photo 19-20 - S/1508, Jug with ram's head, stratum 6 (***Pl. 117***).*



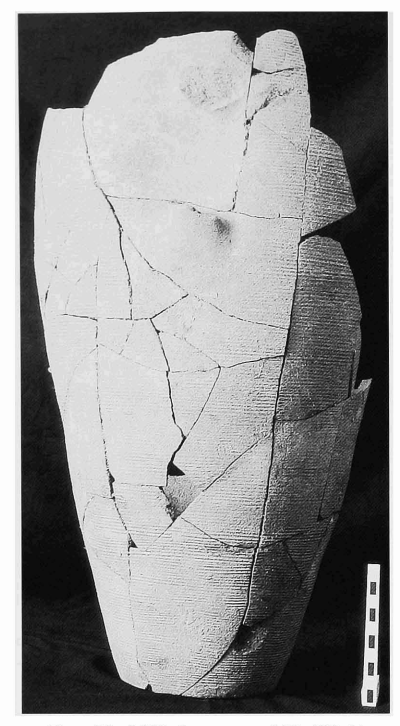


*Photo 21 - S/509, Jar, stratum 6 (***Pl. 109: 1***).*

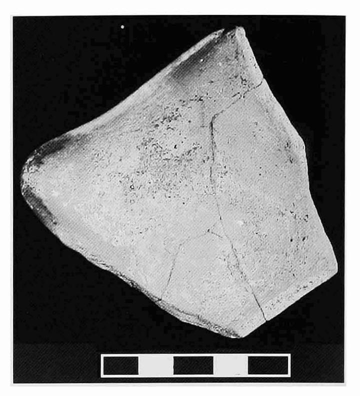


*Photo 22 - Lamp S/1503, stratum 6 (***Pl. 141: 2***).*

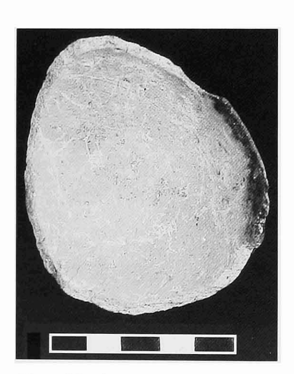


*Photo 23 - Lamp S/11274, stratum 6 (***Pl. 141: 1***).*



*Photo 24 - Handle S/650 with diagonal incisions, stratum 6 (***Pl. 162: 4***).*

CHAPTER IV. THE POTTERY : CATALOGUE

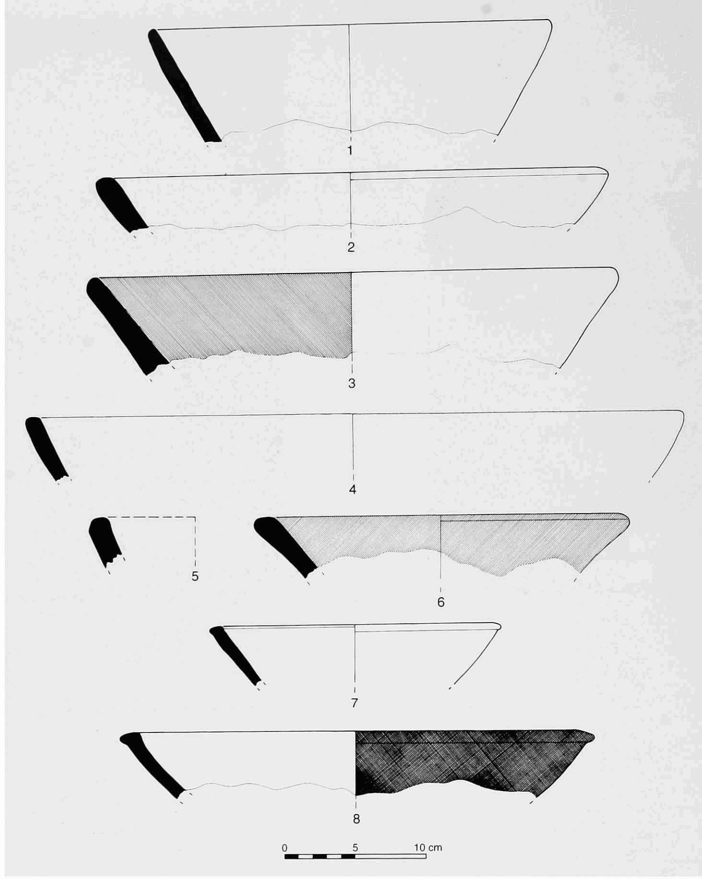
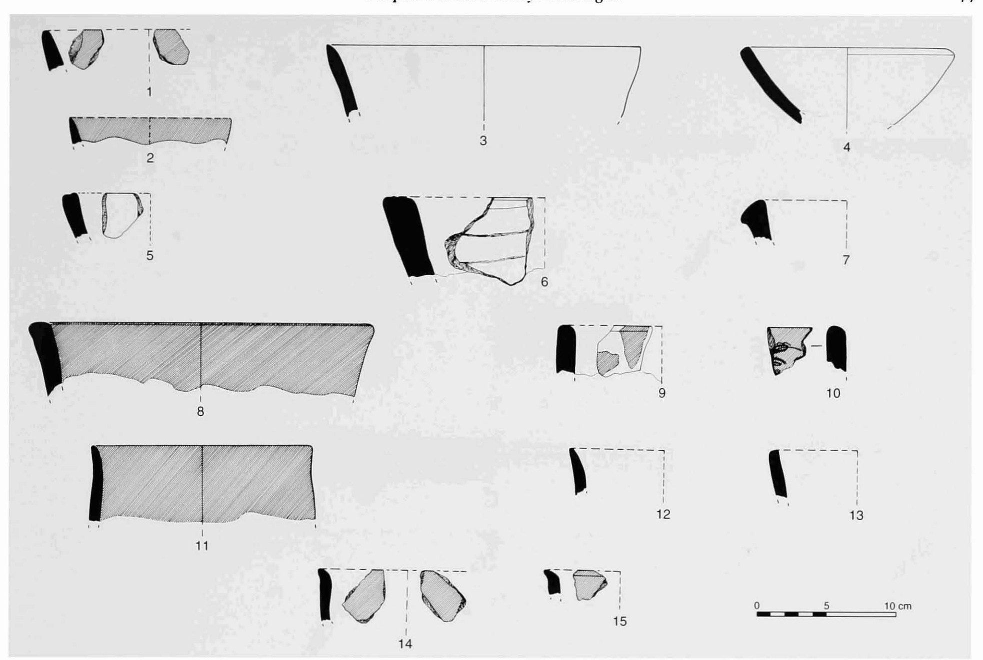


Plate 1.

STRATUM 1

Number	Reg. Number	Object	Locus N°	Description
1	4093	Bowl	116	Pink paste 5 YR 8/3; fabric 5.
2	4103	Bowl	116	Pink paste 5 YR 8/3; fabric 5.
3	4075	Bowl	116	Pink paste 5 YR 8/3; red slip int.; fabric 5.
4	4183	Bowl	118	Pink paste 5 YR 8/4; red slip ext.; fabric 5.
5	11264	Bowl	273	White paste 5 YR 8/1; fabric 5.
6	4208	Bowl	118	White paste 5 YR 8/1; red slip int. and ext.; fabric 5.
7	11193	Bowl	273	Reddish yellow paste 5 YR 7/6; fabric 5.
8	4095	Bowl	116	Light red paste 2.5 YR 6/6; black slip int. (in poor condition) and ext.; fabric 5.



STRATUM 1

Plate 2.

Number	Reg. Number	Object	Locus N°	Description
1	2841	Bowl	083	Pinkish white paste 5 YR 8/2; red slip ext. and int.; fabric 5.
2	11869	Bowl	273	Light red paste 2.5 YR 7/6; red slip ext. and int.; fabric 1.
3	11197	Bowl	273	Light red paste 10 R 6/6; fabric 5.
4	4210	Bowl	118	Pink paste 5 YR 8/4; fabric 5.
5	4142	Bowl	118	Pinkish grey paste 5 YR 7/2; fabric 5.
6	4207	Bowl	118	Reddish yellow paste 5 YR 7/6; incisions ext.; fabric 5.
7	11259	Bowl	273	Pink paste 5 YR 8/4; fabric 5.
8	11256 11257	Bowl	273	Pinkish white paste 5 YR 8/2; red slip int. and ext.; fabric 5.
9	2809	Bowl	083	Pink paste 5 YR 8/3; red slip int. fabric 5.
10	2826	Bowl	083	Light reddish brown paste 2.5 YR 7/3; red slip int.; incisions int.; fabric 5.
11	4079	Bowl	116	White paste 5 YR 8/2; red slip ext. and int.; fabric 5.
12	2822	Bowl	083	Pink paste 5 YR 8/4; fabric 5.
13	2825	Bowl	083	Light reddish brown paste 2.5 YR 7/3; fabric 1.
14	2827	Bowl	083	Pink paste 5 YR 8/4; red slip ext. and int.; fabric 5.
15	2820	Bowl	083	Pink paste 5 YR 8/4; red slip int.; fabric 5.

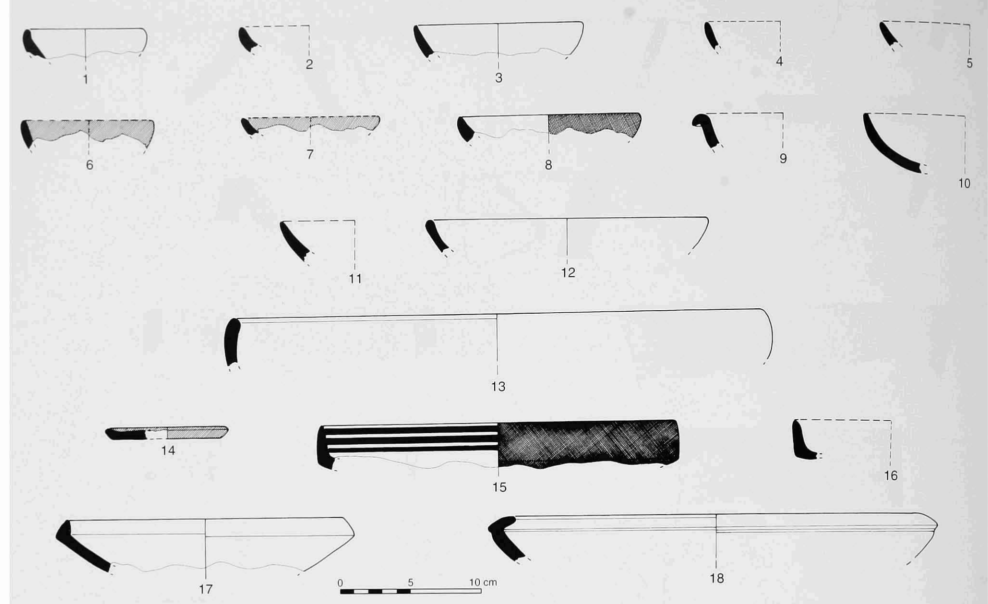


Plate 3.

STRATUM 1

Number	Reg. Number	Object	Locus Nº	Description
1	4122	Bowl	116	Dark grey paste; 5 YR 4/1; fabric 1.
2	11198	Bowl	273	Light red paste 2.5 YR 7/6; fabric 2.
3	4120	Bowl	116	Light reddish brown paste 2.5 YR 7/4; fabric 5.
4	11268	Bowl	273	Red paste 10 R 5/6; fabric 2.
5	11267	Bowl	273	White paste 5 YR 8/1; fabric 5.
6	11192	Bowl	273	Light red paste 2.5 YR 7/6; red slip int. and ext.; fabric 1.
7	11270	Bowl	273	Light red paste 2.5 YR 7/6; red slip int. and ext.; fabric 5.
8	4133	Bowl	116	Grey paste 5 YR 6/1; black slip int. burnishing; fabric 5.
9	11195	Bowl	273	Dark reddish grey 10 R 4/1; light incisions ext.; fabric 5.
10	11185	Bowl	273	Pink paste 5 YR 8/3; red slip int. and ext. (poor condition); fabric 5.
11	17050	Bowl	083	Pink paste 5 YR 8/3; fabric 5.
12	11260	Bowl	273	Pink paste 5 YR 8/4; red slip int. (poor condition); fabric 5.
13	2814	Bowl	083	Pinkish white paste 5 YR 8/2; red slip int. (poor condition); fabric 5.
14	17049	Tray	273	White paste 7.5 YR 8/1; red slip int. and ext.; fabric 5.
15	2807	Platter/Bowl	083	Light red paste 2.5 YR 7/6; black slip ext. and int. (horizontal bands); fabric 1.
16	2828	Platter/Bowl	083	Light red paste 2.5 YR 7/6; burnished ext.; fabric 1.
17	2808	Platter/Bowl	083	Light red paste 2.5 YR 7/6; burnished ext. and int.; fabric 2.
18	2798	Platter/Bowl	083	Light red paste 2.5 YR 7/6; burnished ext. and int.; fabric 5.

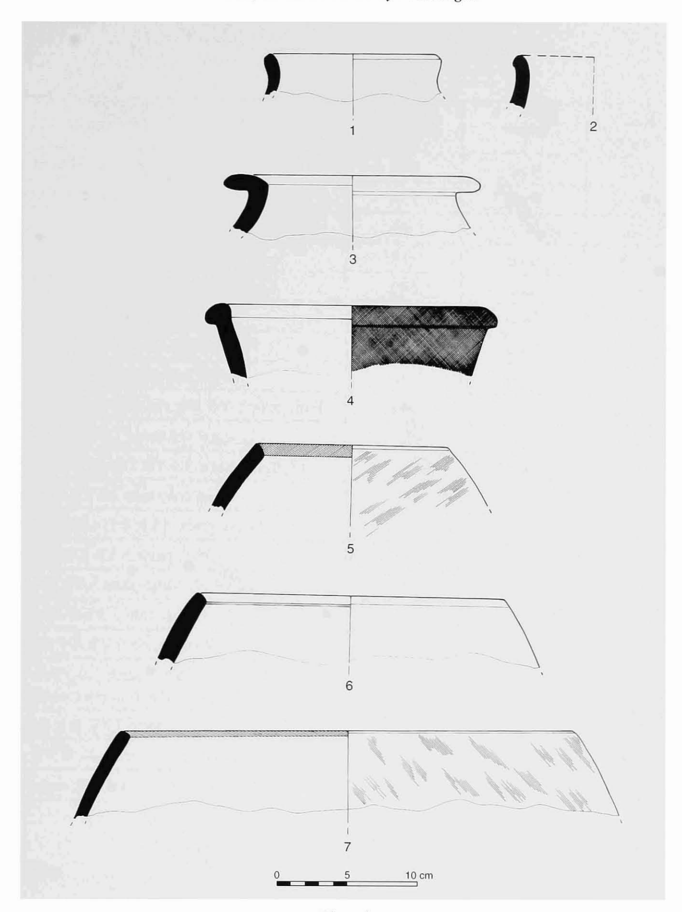


Plate 4.

STRATUM 1

Number	Reg. Number	Object	Locus N°	Description
1	2834	Jug	083	Light red paste 2.5 YR 7/8; fabric 1.
2	2819	Jug	083	Light red paste 2.5 YR 7/8; fabric 1.
3	2799	Jug	083	Reddish yellow paste 7.5 YR 8/6; fabric 5.
4	4076	Jug	116	Light red paste 2.5 YR 6/6; black slip ext.; fabric 5.
5	4195	Hole-mouth	118	Pink paste 5 YR 8/4; red slip ext. and on the rim; fabric 5.
6	2800	Hole-mouth	083	Light red paste 2.5 YR 6/8; smoke-blackened rim; fabric 2.
7	4105	Hole-mouth	116	Pink paste 5 YR 8/3; red slip ext. and on the rim.; fabric 5.

STRATUM 1

Number	Reg. Number	Object	Locus N°	Description
1	2832	Base	083	Light red paste 2.5 YR 6/8; red slip int. and ext.; fabric 5.
2	11263	Base	273	Pink paste 5 YR 8/3; fabric 5.
3	2817	Base	083	Light reddish brown paste 2.5 YR 6/3; red slip int.; fabric 1.
4	4168	Base	118	Reddish yellow paste 5 YR 7/6; fabric 2.
5	2831	Base	083	Light reddish brown paste 2.5 YR 7/3; fabric 1.
6	11262	Base	273	Pinkish white paste 5 YR 8/2; fabric 5.
7	4181	Base	118	Pink paste 5 YR 8/4; red slip ext.; fabric 5.
8	4106	Base	116	Light red paste 2.5 YR 7/8; fabric 2.
9	4163	Base	118	Pink paste 5 YR 8/4; red slip ext. in poor condition; fabric 5.
10	2816	Base	083	Light red paste 2.5 YR 7/8; fabric 2.
11	2795	Base	083	Light red paste 2.5 YR 7/8; light combing ext.; fabric 1.
12	2802	Base	083	Light red paste 2.5 YR 6/8; fabric 5.
13	4084	Base	116	White paste 5 YR 8/1; red slip ext.; fabric 5.
14	11188	Base	273	Pink paste 5 YR 8/4; fabric 5.
15	11258	Base	273	Pinkish white paste 5 YR 8/2; fabric 5.
16	11261	Base	273	Light red paste 2.5 YR 7/6; fabric 5.
17	4077	Base	116	White paste 5 YR 8/1; fabric 5.
18	11196	Base	273	White paste 7.5 YR 8/1; red slip int. and ext. in poor condition; fabric 5.
19	11186	Base	273	White paste 5 YR 8/1; fabric 5.
20	11190	Base	273	Reddish grey paste 10 R 5/1; fabric 1.
21	2796	Base	083	Light red paste 2.5 YR 7/8; combing; fabric 2.

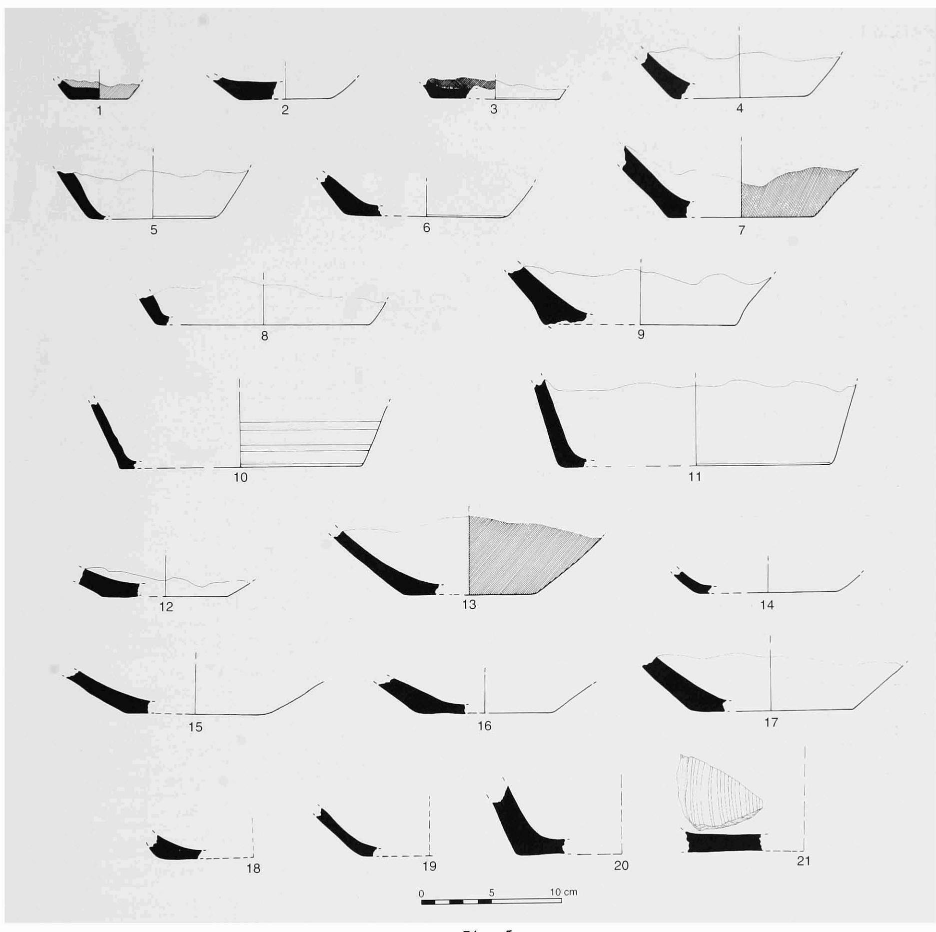


Plate 5.

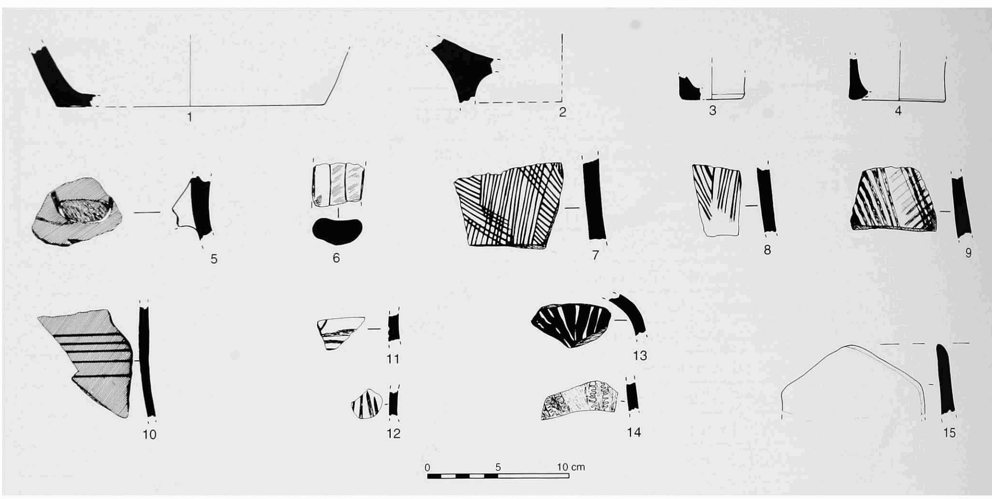


Plate 6.

STRATUM 1

Number	Reg. Number	Object	Locus N°	Description
1	17048	Base	273	Light red paste 2.5 YR 7/6; fabric 1.
2	4162	Base	118	Pink paste 5 YR 8/4; black slip int. and ext. in poor condition; fabric 5.
3	2818	Base	083	Light red paste 2.5 YR 7/6; fabric2.
4	4132	Base	116	Reddish grey paste 2.5 YR 6/1; fabric 2.
5	4160	Handle	118	Pink paste 5 YR 8/4; red slip ext.; fabric 5.
6	4184	Handle	118	Pinkish white paste 5 YR 8/2; fabric 5.
7	2806	Body sherd	083	Light red paste 2.5 YR 7/8; pattern combing; fabric 1.
8	2812	Body sherd	083	Light red paste 2.5 YR 7/8; pattern combing; fabric 2.
9	2805	Body sherd	083	Light red paste 2.5 YR 7/8; pattern combing; fabric 2.
10	11184	Body sherd	273	Light brown paste 7.5 YR 6/3; black slip int.; reddish black slip ext.; incisions ext.; fabric 1.
11	4153	Body sherd	118	Pink paste 5 YR 8/4; incisions; red slip ext.; fabric 5.
12	11272	Body sherd	273	Pink paste 7.5 YR 7/3; incisions and red slip ext. in poor condition; fabric 5.
13	2815	Body sherd	083	Light red paste 2.5 YR 7/8; burnishing; black paint; fabric 1.
14	2823	Body sherd	083	Light red paste 2.5 YR 6/8; ext. burnishing; black paint; small horizontal incisions; fabric 1.
15	2797	Triangular-shaped body sherd	083	Light red paste 2.5 YR 6/8; fabric 2.

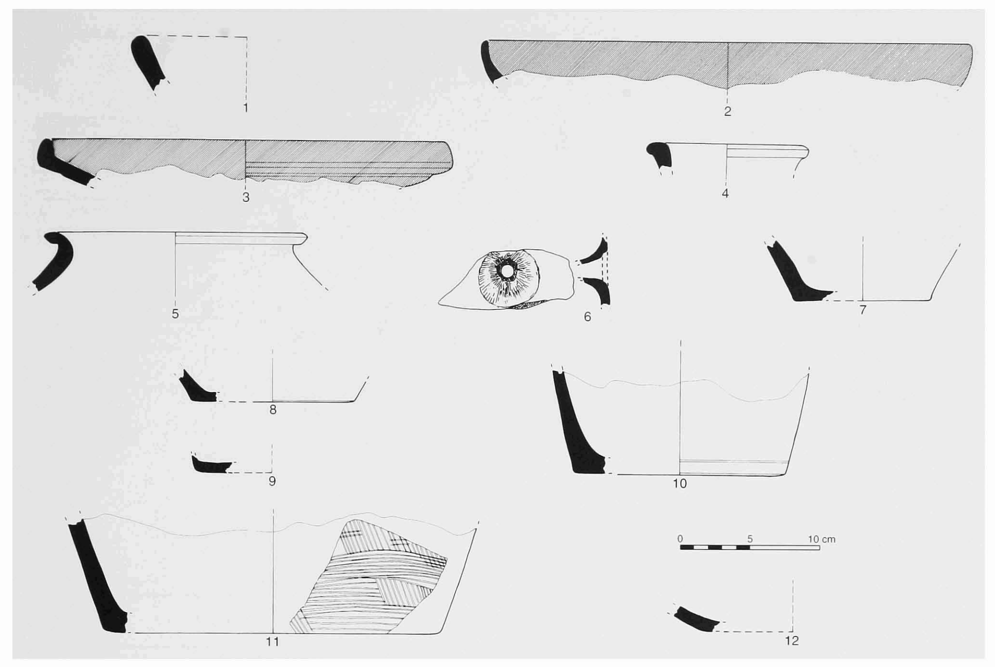


Plate 7.

STRATUM 2

Number	Reg. Number	Object	Locus N°	Description
1	4024	Bowl	114	Pinkish white paste 5 YR 8/2; fabric 5.
2	3994	Bowl	115	Pinkish white paste 5 YR 8/2; red slip int. and ext.; fabric 5.
3	10775	Platter/bowl	270	Red paste 10 R 5/8; red slip int. and ext.; fabric 1.
4	3998	Jug	115	Pinkish white paste 5 YR 8/2; fabric 5.
5	17051	Jug	078	Light red paste 10 R 6/8; fabric 5.
6	2358	Spout	078	Light red paste 2.5 YR 6/8; horizontal burnishing ext.; fabric 2.
7	10774	Base	270	Pink paste 7.5 YR 7/3 ext.; fabric 2.
8	2364	Base	078	Light red paste 10 R 6/8; fabric 5.
9	10776	Base	270	Red paste 10 R 5/8; fabric 2.
10	2357	Base	078	Pinkish white paste 5 YR 8/2; fabric 5.
11	2359	Base	078	Light red paste 2.5 YR 6/8; Pattern combing ext.; fabric 1.
12	2363	Base	078	Red paste 10 R 5/8; fabric 1.

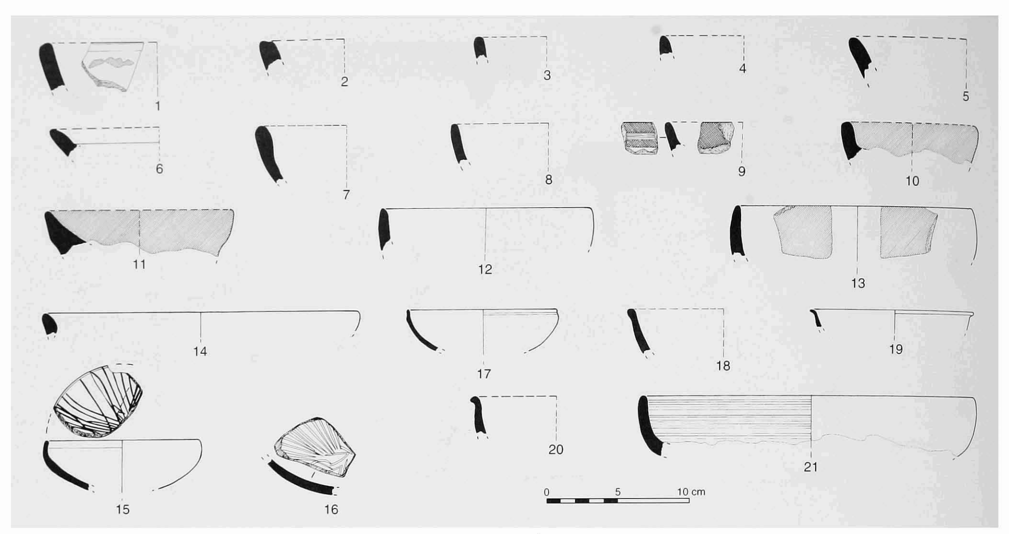


Plate 8.

STRATUM 3

Number	Reg. Number	Object	Locus N°	Description
1	3911	Bowl	108	Light red paste 10 R 6/8; red slip int.; fabric 2.
2	11163	Bowl	234	Light red paste 2.5 YR 7/6; fabric 5.
3	10785	Bowl	235	Light red paste 2.5 YR 7/6; fabric 5.
4	11172	Bowl	234	Light red paste 10 R 6/8; fabric 1.
5	11067	Bowl	262	Red paste 10 R 5/6; fabric 1.
6	3789	Bowl	107	Light red paste 2.5 YR 6/8; burnishing; fabric 1.
7	10778	Bowl	235	Reddish grey paste 2.5 YR 6/1; fabric 1.
8	8571	Bowl	251	Light red paste 10 R 6/6; fabric 1.
9	4014	Bowl	112	Light red paste 2.5 YR 6/8; black slip ext. and int.; incised ext.; fabric 1.
10	10783 10788	Bowl	235	Pinkish white paste 5 YR 8/2; red slip int. and ext.; burnished int. and ext.; fabric 5.
11	10781	Bowl	235	Pinkish white paste 5 YR 8/2; red slip int. and ext.; burnished int. and ext.; fabric 5.
12	2028	Bowl	068	Light red paste 10 R 6/8; fabric 2.
13	2345	Bowl	068	Pinkish white paste 5 YR 8/2; red slip int. and ext.; fabric 5.
14	11173	Bowl	234	Dark reddish grey paste 10 R 4/1; fabric 2.
15	2343	Bowl	068	Weak red paste 10 R 5/2; burnished int.; fabric 1 (**photo 1**, p. 70).
16	3908	Bowl	108	Light red paste 2.5 YR 6/8; burnished int.; fabric 2.
17	2025	Bowl	068	Red paste 10 R 5/6; fabric 1.
18	2075	Bowl	068	Light reddish brown paste 2.5 YR 7/4; fabric 5.
19	11069	Bowl	262	Weak red paste 10 R 5/4; fabric 1.
20	3925	Bowl	109	Light red paste 2.5 YR 6/8; fabric 5.
21	3660	Bowl	103	Red paste 10 R 4/1; fabric 1.

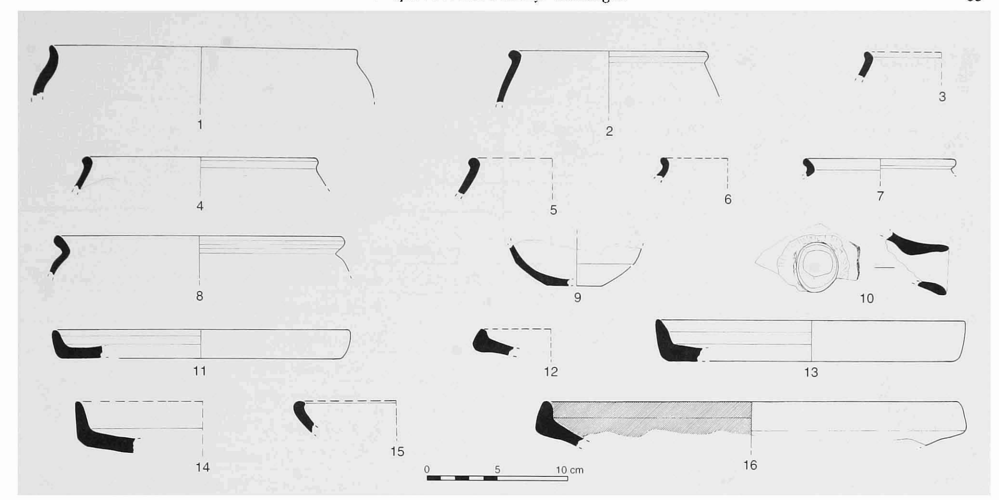


Plate 9.

STRATUM 3

Number	Reg. Number	Object	Locus N°	Description
1	10598	Bowl	256	Red paste 10 R 5/8; fabric 1.
2	2013	Bowl	068	Light red paste 10 R 5/6; fabric 1.
3	2030	Bowl	068	Light red paste 10 R 6/6; fabric 2.
4	2038	Bowl	068	Light reddish brown paste 5 YR 6/3; fabric 2.
5	2026	Bowl	068	Pinkish grey paste 5 YR 6/2; fabric 2.
6	11170	Bowl	234	Pink paste 5 YR 8/3; red slip int. and on the rim (in poor condition); fabric 5.
7	2019	Bowl	068	Light red paste 2.5 YR 6/8; fabric 1.
8	1999	Bowl	068	Light red paste 10 R 6/8; fabric 1.
9	2015	Bowl	068	Light reddish brown paste 2.5 YR 7/3; fabric 2.
10	8561	Spouted Bowl	250	Light reddish brown paste 2.5 YR 7/3; fabric 5.
11	2353	Tray	068	Light reddish brown paste 2.5 YR 7/3; pink slip 5 YR 8/3; fabric 5.
12	11164	Platter/bowl	234	Reddish grey paste 10 R 6/1; fabric 5.
13	2344	Tray	068	Red paste 10 R 5/6; fabric 1.
14	3681	Platter/bowl	104	Reddish yellow paste 5 YR 7/6; burnished int. and ext.; fabric 2.
15	3945	Platter/bowl	109	Red paste 10 R 5/6; fabric 1.
16	8565	Platter/bowl	251	Light red paste 10 YR 6/8; red slip int.; fabric 1.

STRATUM 3

Number	Reg. Number	Object	Locus N°	Description
1	11162	Jar / Jug	234	Light red paste 2.5 YR 7/6; fabric 2.
2	10779	Jar / Jug	235	Weak red paste 10 R 5/3; fabric 2.
3	11166	Jar / Jug	234	Light red paste 2.5 YR 6/8; red paint ext. and int. on rim.; white paint ext.; fabric 2.
4	10601	Jar / Jug	256	Reddish grey paste 10 R 6/1; burnished int. and ext.; fabric 1.
5	2034	Jar / Jug	068	Weak red paste 10 R 5/3; fabric 2.
6	8560	Jar / Jug	250	Weak red paste 10 R 5/2; fabric 3.
7	8573	Jar / Jug	251	Red paste 10 R 5/8; fabric 2.
8	1990	Jar / Jug	068	Red paste 10 R 4/8; fabric 1.
9	11065	Jar / Jug	262	Light red paste 2.5 YR 6/6; fabric 2.
10	3777	Jar / Jug	107	Pale red paste 2.5 YR 7/2; smoke-blackened rim; fabric 1.
11	11066	Jar / Jug	262	Light red paste 2.5 YR 6/6; fabric 1.
12	8567	Jar / Jug	251	Pink paste 5 YR 7/4; fabric 2.
13	8559	Jar / Jug	251	Pink paste 5 YR 7/4; fabric 2.
14	8563	Jar / Jug	250	Light reddish brown paste 2.5 YR 7/4; fabric 1.
15	2033	Jar / Jug	068	Light red paste 2.5 YR 7/6; fabric 2.
16	8558	Jar / Jug	250	Light red paste 2.5 YR 7/8; fabric 1.
17	11171	Jar / Jug	234	Light reddish brown paste 2.5 YR 7/4; fabric 5.
18	11168	Jar / Jug	234	Light reddish brown paste 2.5 YR 7/4; fabric 5.
19	2016	Jar / Jug	068	Pink paste 7.5 YR 8/3; red slip int. and ext.; fabric 5.
20	10602	Jar / Jug	256	Light red paste 10 R 6/8; fabric 1.
21	10784	Jar / Jug	235	Light reddish brown paste 2.5 YR 7/4; fabric 2.
22	10786	Jar / Jug	235	Red paste 10 R 5/8; fabric 1.
23	3912	Jar / Jug	108	Red paste 10 R 5/6; fabric 2.
24	3935	Jar / Jug	109	Light red paste 2.5 YR 7/6; fabric 1.
25	2004	Jar / Jug	068	Light red paste 10 R 6/6; black paint int.; fabric 1.

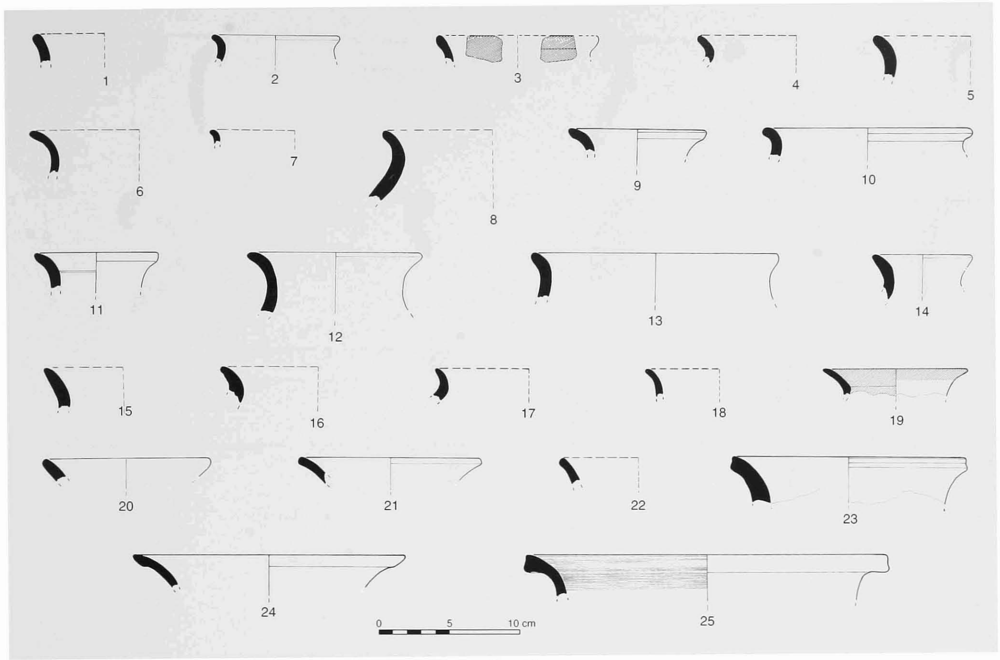


Plate 10.

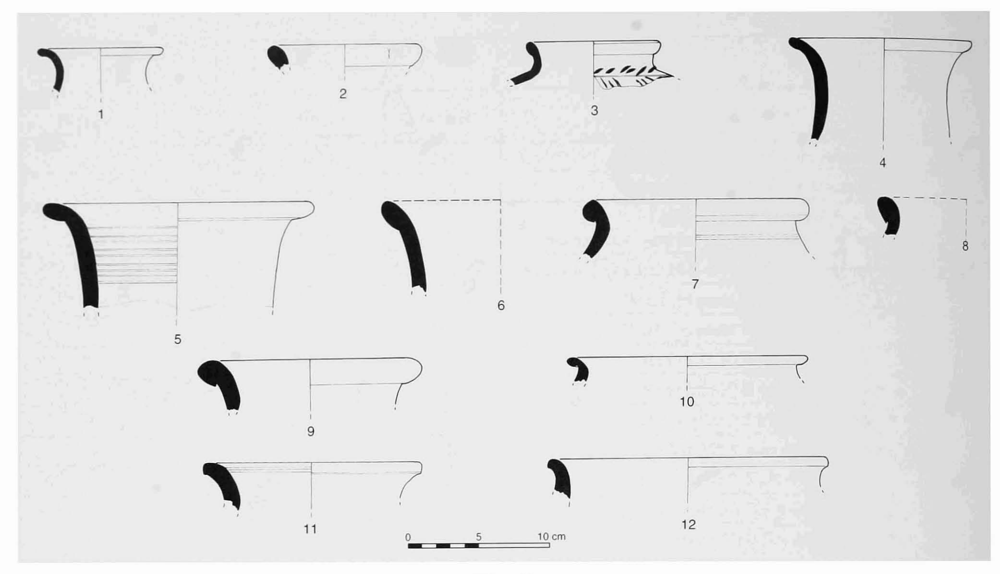


Plate 11.

STRATUM 3

Number	Reg. Number	Object	Locus N°	Description
1	3664	Jar / Jug	103	Light red paste 10 R 6/8; fabric 1.
2	10780	Jar / Jug	235	Very pale brown paste 10 YR 8/2; fabric 2.
3	3938	Jar/Jug	109	Red paste 10 R 5/8; herringbone incisions at junction of neck and body; fabric 1.
4	3920	Jar / Jug	109	Red paste 10 R 4/8; fabric 1.
5	2008	Jar / Jug	068	Light red paste 2.5 YR 6/8; fabric 1.
6	11160	Jar / Jug	234	Red paste 10 R 5/8; black paint int. and ext.; fabric 1.
7	1997	Jar / Jug	068	Red paste 10 R 5/8; fabric 3.
8	2027	Jar / Jug	068	Red paste 10 R 5/8; fabric 1.
9	3940	Jar / Jug	109	Red paste 10 R 5/8; fabric 2.
10	3793	Jar / Jug	104	Weak red paste 10 R 5/3; fabric 2.
11	10603	Jar / Jug	256	Weak red paste 10 R 4/3; fabric 2.
12	2347	Jar / Jug	068	Weak red paste 10 R 5/3; fabric 2.

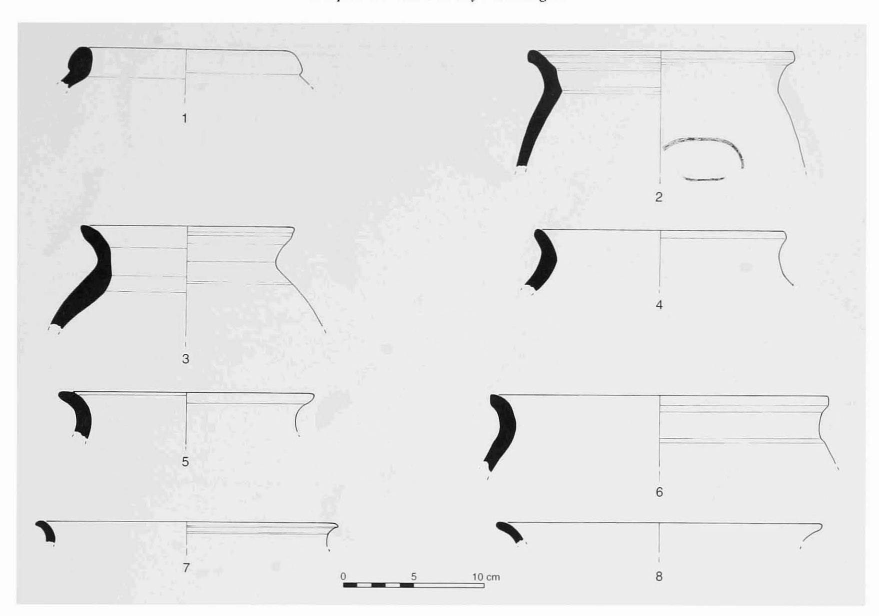


Plate 12.

STRATUM 3

Number	Reg. Number	Object	Locus N°	Description
1	2000	Hole-mouth	068	Pink paste 5 YR 7/3; fabric 5.
2	8556	Hole-mouth	250	Red paste 10 R 5/6 int. and ext.; incised ext.; fabric 1.
3	4008	Hole-mouth	112	Red paste 10 R 5/6; fabric 2.
4	1998	Hole-mouth	068	Light red paste 10 R 6/6; fabric 1.
5	3795	Hole-mouth	107	Light red paste 2.5 YR 6/8; fabric 1.
6	2003	Hole-mouth	068	Red paste 10 R 5/6; fabric 1.
7	3662	Hole-mouth	103	Light reddish brown paste 2.5 YR 7/6; fabric 1.
8	3792	Hole-mouth	107	Red paste 10 R 5/8; fabric 2.

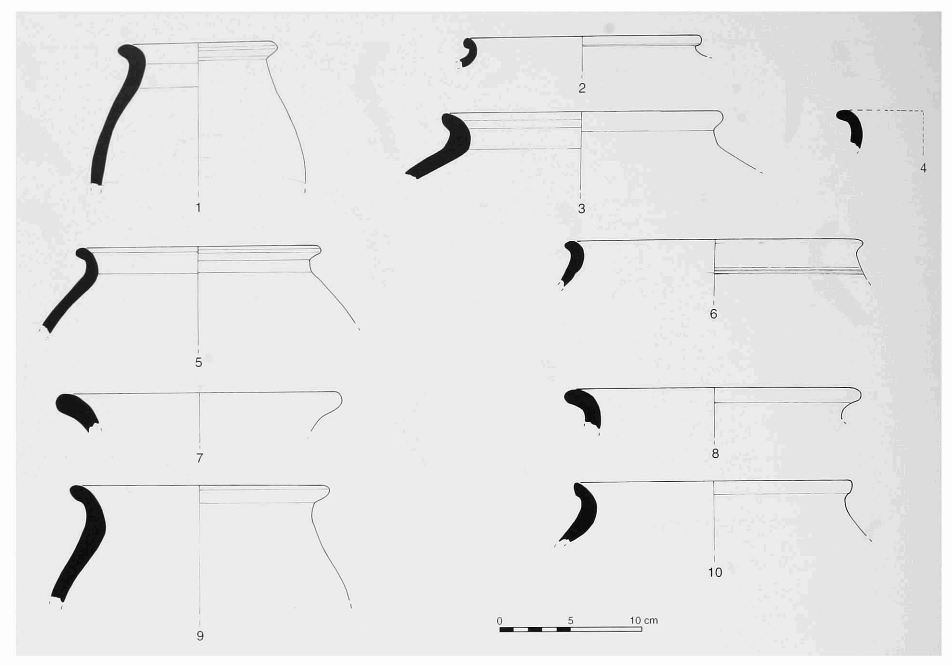


Plate 13.

STRATUM 3

Number	Reg. Number	Object	Locus N°	Description
1	2342	Hole-mouth	068	Red paste 10 R 5/8; fabric 3.
2	3798	Hole-mouth	107	Light red paste 2.5 YR 6/8; fabric 1.
3	3655	Hole-mouth	103	Light red paste 10 R 6/8; smoke-blackened rim; fabric 2.
4	3784	Hole-mouth	107	Pale red paste 2.5 YR 7/2; smoke-blackened rim; fabric 2.
5	3799	Hole-mouth	107	Very pale brown paste 10 YR 8/4; smoke-blackened rim; fabric 3.
6	8566	Hole-mouth	251	Light red paste 10 R 6/6; horizontal incised lines ext.; fabric 2.
7	1995	Hole-mouth	068	Red paste 10 R 5/6; fabric 2.
8	3771	Hole-mouth	107	Light red paste 2.5 YR 7/6; fabric 2.
9	1987	Hole-mouth	068	Red paste 10 R 5/6; fabric 3.
10	3679	Hole-mouth	104	Weak red paste 10 R 5/4; fabric 3.

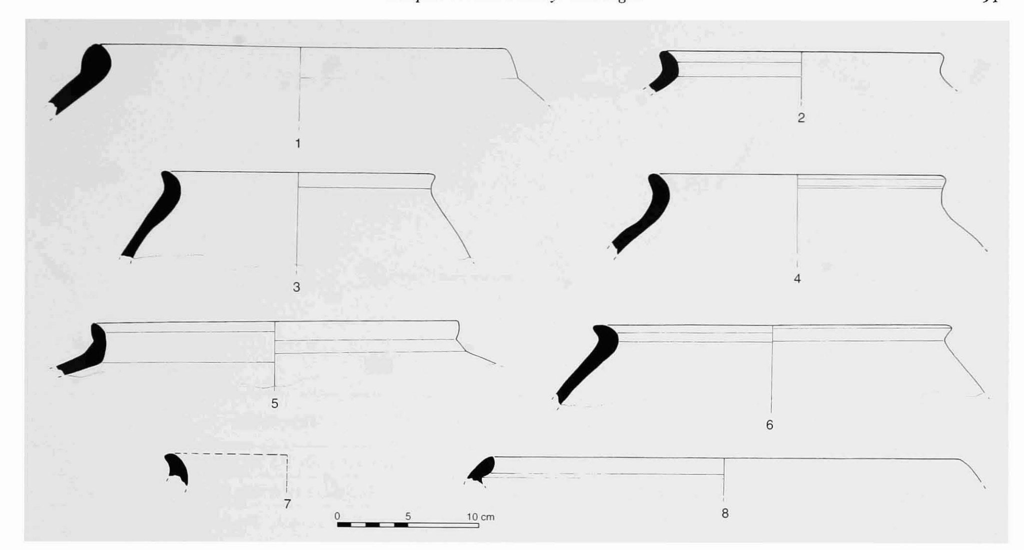


Plate 14.

STRATUM 3

Number	Reg. Number	Object	Locus N°	Description
1	1988	Hole-mouth	068	Reddish grey paste 10 R 6/1; fabric 2.
2	3933	Hole-mouth	109	Pale yellow paste 2.5 YR 7/3; fabric 2.
3	3661	Hole-mouth	103	Pale yellow paste 2.5 YR 7/3; fabric 2.
4	3694	Hole-mouth	104	Very pale brown paste 10 YR 8/2; smoke-blackened rim; fabric 2.
5	3673	Hole-mouth	103	Light red paste 10 R 6/6; fabric 2.
6	3657	Hole-mouth	103	Pale yellow paste 2.5 YR 7/3; fabric 2.
7	3675	Hole-mouth	103	Red paste 10 R 5/8; fabric 2.
8	10600	Hole-mouth	256	Dark reddish grey paste 10 R 4/1; fabric 1.

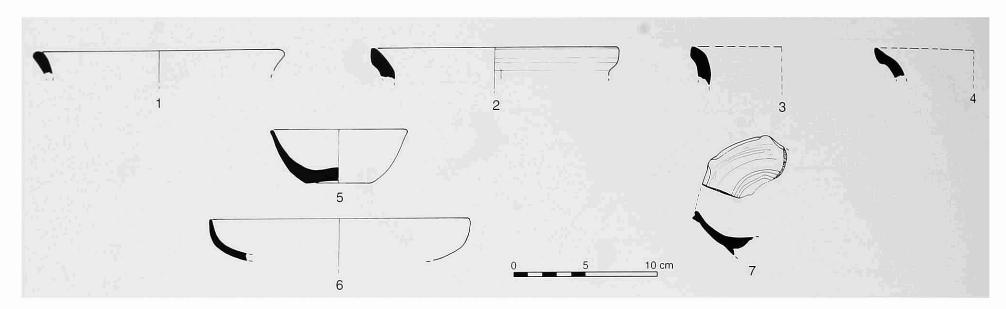


Plate 15.

STRATUM 3

Number	Reg. Number	Object	Locus N°	Description
1	3783	Cooking pot	107	Light red paste 2.5 YR 6/8; fabric 2.
2	4013	Cooking pot	112	Red paste 10 R 4/6; fabric 2.
3	3677	Cooking pot	104	Red paste 10 R 4/8; smoke-blackened rim; fabric 3.
4	3928	Cooking pot	109	Light red paste 2.5 YR 6/6; smoke-blackened rim; fabric 2.
5	2350	Lamp	068	Red paste 10 R 5/6; smoke-blackened rim; fabric 2.
6	10605 10606 10608 10610	Lamp	256	Light red paste 10 R 6/8; smoke-blackened rim; fabric 1.
7	1622	Lamp	068	Red paste 10 R 5/6; fabric 1 (**photo 4**, p. 71).

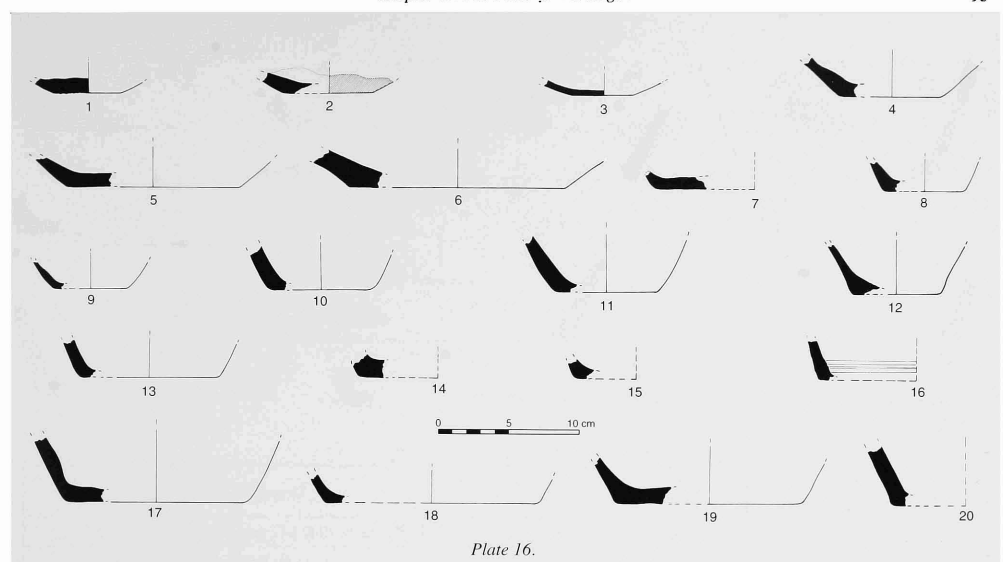


Plate 16.

STRATUM 3

Number	Reg. Number	Object	Locus Nº	Description
1	3922	Base	109	Light red paste 10 R 6/8; fabric 2.
2	8572	Base	251	Light red paste 2.5 YR 7/6; fabric 2; red slip ext.
3	3674	Base	103	Light reddish brown paste 2.5 YR 7/3; fabric 5.
4	3682	Base	104	Light red paste 10 R 6/8; fabric 1.
5	3656	Base	103	Very pale paste 10 YR 8/4; fabric 1.
6	3794	Base	107	Light red paste 2.5 YR 7/6; red slip ext.; fabric 5.
7	8568	Base	251	White paste 7.5 YR 8/1; fabric 5.
8	10607	Base	256	Weak red paste 10 R 4/4; fabric 1.
9	10777	Base	235	Pink paste 7.5 YR 8/3; fabric 5.
10	3903	Base	108	Red paste 10 R 4/6; fabric 1.
11	3778	Base	107	Light grey paste 10 YR 7/2; fabric 5.
12	11161	Base	234	Dark reddish grey paste 10 R 4/1; fabric 1.
13	8570	Base	251	Weak red paste 10 R 4/2; fabric 1
14	2023	Base	068	Light red paste 10 R 6/8; fabric 2.
15	2017	Base	068	Pale red paste 10 R 6/4; fabric 5.
16	2037	Base	068	Red paste 10 R 5/8; fabric 1.
17	3669	Base	103	Light reddish brown paste 2.5 YR 7/3; fabric 2.
18	10599	Base	256	Dark reddish grey paste 10 R 4/1; vertical burnishing ext.; fabric 1.
19	8557	Base	250	Pink paste 5 YR 7/3; fabric 5.
20	3691	Base	104	Red paste 10 R 5/8; fabric 1.

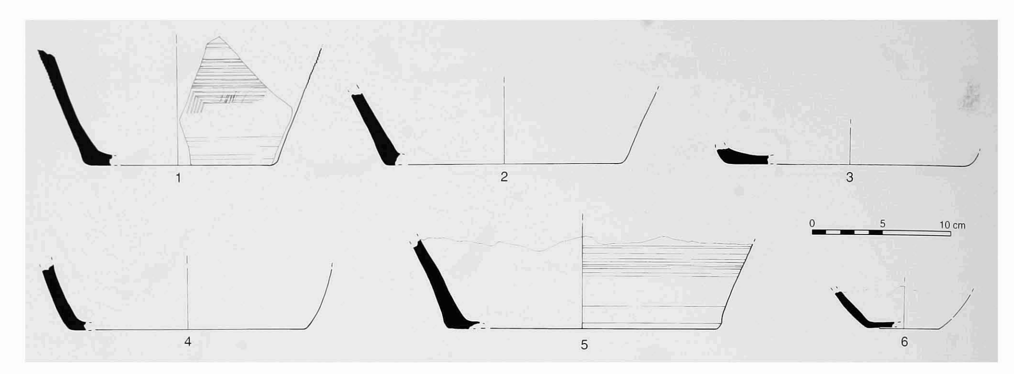


Plate 17.

STRATUM 3

Number	Reg. Number	Object	Locus N°	Description
1	3926	Base	109	Light red paste 10 R 6/6; pattern combing; fabric 1.
2	2352	Base	068	Red paste 10 R 5/6; fabric 1.
3	3934	Base	109	Light red paste 10 R 6/8; fabric 2.
4	2012	Base	068	Red paste 10 R 5/6; fabric 1.
5	3654	Base	103	Light red paste 2.5 YR 6/6; fabric 2.
6	2002	Base	068	Light red paste 10 R 6/6; fabric 1.

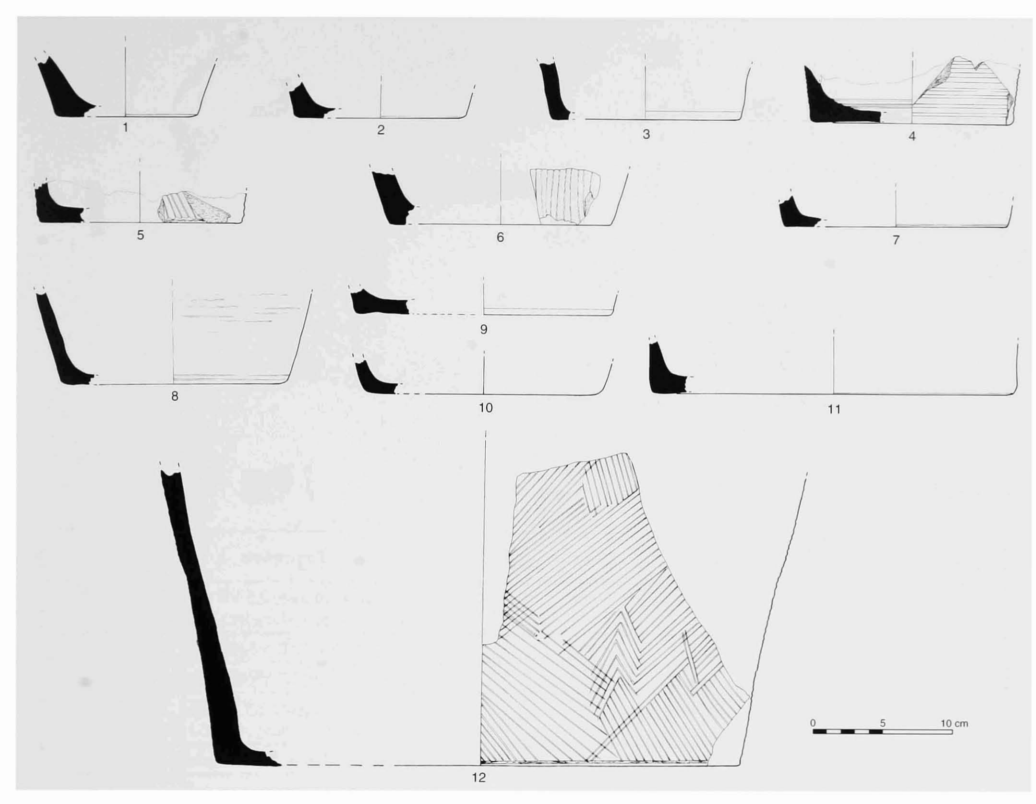


Plate 18.

STRATUM 3

Number	Reg. Number	Object	Locus N°	Description
1	3773	Base	107	Pink paste 7.5 YR 7/3; red slip ext.; fabric 5.
2	4015	Base	112	Reddish yellow paste 5 YR 7/6; fabric 5.
3	3695	Base	104	Red paste 10 R 5/6; fabric 1.
4	3906	Base	108	Light red paste 10 R 6/8; horizontal combing ext.; fabric 1.
5	3914	Base	108	Red paste 10 R 5/8; diagonal combing ext.; fabric 1.
6	1991	Base	068	Light red paste 10 R 6/8; vertical combing ext.; fabric 1.
7	3692	Base	104	Red paste 10 R 4/8; fabric 1.
8	3941	Base	109	Pale red paste 10 R 6/4; horizontal combing; fabric 2.
9	3785	Base	107	Light reddish brown paste 2.5 YR 7/4; fabric 1.
10	11068	Base	262	Red paste 10 R 5/8; fabric 1.
11	3665	Base	104	Light red paste 10 R 6/8; fabric 2.
12	1561	Base	068	Light red paste 10 R 6/8; pattern combing ext.; fabric 2.

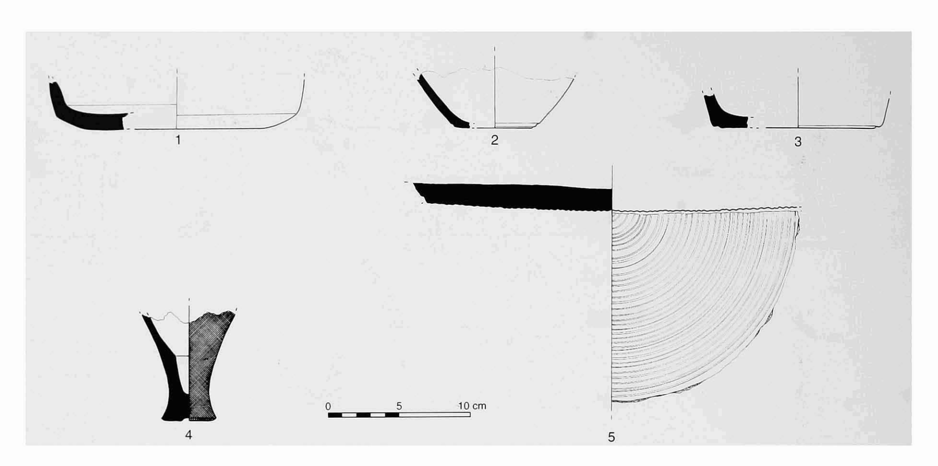


Plate 19.

STRATUM 3

Number	Reg. Number	Object	Locus N°	Description
1	3663	Base	103	Light red paste 2.5 YR 6/8; horizontal burnishing int.; fabric 1.
2	3913	Base	108	Red paste 10 R 5/8; fabric 1.
3	3775	Base	107	Light red paste 2.5 YR 6/8; fabric 2.
4	16008	Base	107	Light red paste 2.5 YR 7/6; black slip ext.; vertical burnishing; fabric 2 (**photo 2**, p. 70).
5	1592	Base	068	Light red paste 10 R 6/8; fabric 1 (**photo 3**, p. 70).

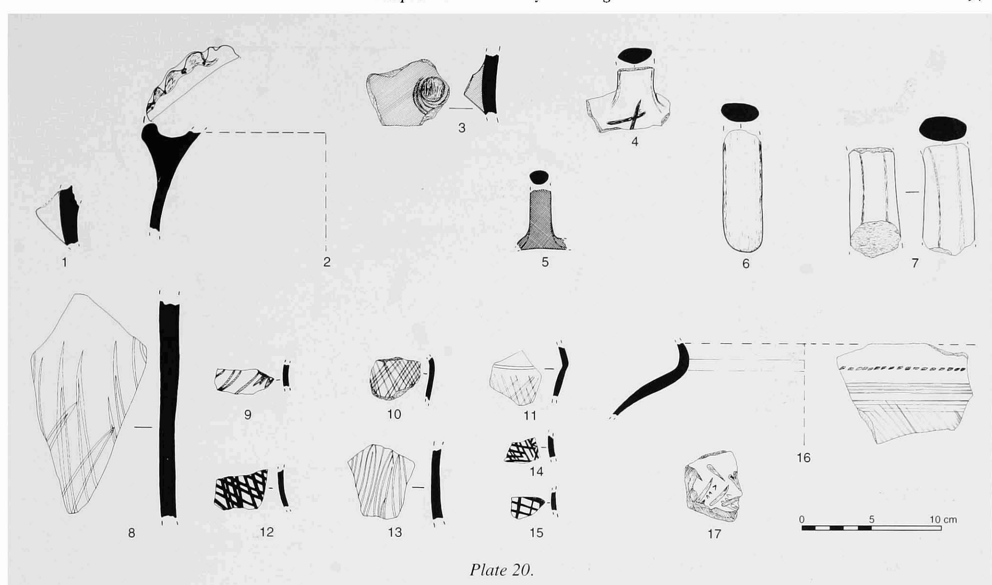


Plate 20.

STRATUM 3

Number	Reg. Number	Object	Locus N°	Description
1	8362	Lug handle	250	Pink paste 5 YR 8/4; fabric 5.
2	2001	Ledge handle	068	Light red paste 2.5 YR 6/8; fabric 3.
3	2010	Loop handle	068	Pink paste 7.5 YR 8/3; red slip ext.; fabric 5.
4	4018	Loop handle	112	Red paste 10 R 5/6; incised decoration; potters mark x incision; fabric 1.
5	3790	Loop handle	107	Pale red paste 2.5 YR 7/2; black slip ext.; fabric 1.
6	1989	Loop handle	068	Pink paste 7.5 YR 7/3; fabric 1.
7	1994	Loop handle	068	Pink paste 7.5 YR 8/3; red slip ext.; fabric 5.
8	2009	Body sherd	068	Light red paste 2.5 YR 6/8; pattern burnishing ext.; fabric 2.
9	11167	Body sherd	234	Pink paste 7.5 YR 8/3; burnishing diagonal lines ext.; fabric 5.
10	8564	Body sherd	250	Red paste 10 R 5/8; net burnishing ext.; fabric 1.
11	2032	Body sherd	068	Light red paste 2.5 YR 7/6; net burnishing ext.; fabric 1.
12	11165	Body sherd	234	Dark reddish grey paste 10 R 4/1; net burnishing ext.; fabric 1.
13	1996	Body sherd	068	Light reddish brown paste 2.5 YR 7/4; vertical lines black paint ext.; fabric 2.
14	8553	Body sherd	250	Light red paste 10 R 6/6; black net paint ext.; fabric 2.
15	2021	Body sherd	068	Light red paste 10 R 6/8; black net paint ext.; fabric 1.
16	3676	Body sherd	104	Dark grey paste 5 YR 4/1; incised punctured line and pattern combing ext.; fabric 2.
17	3929	Body sherd	109	Light red paste 10 R 6/6; incised decoration ext. in a herringbone design; fabric 1.

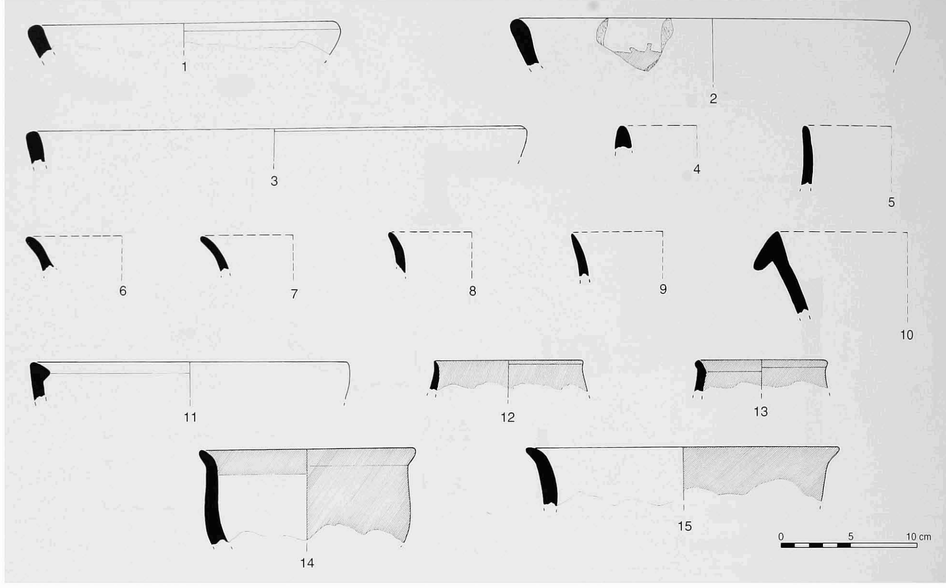


Plate 21.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	4341	Bowl	119	Pink paste 5 YR 8/4; fabric 5.
2	1001	Bowl	044	Light red paste 2.5 YR 7/8; red slip int. under the rim; fabric 2.
3	4228	Bowl	122	Light red paste 10 R 6/8; fabric 2.
4	3418	Bowl	099	Light red paste 2.5 YR 7/6; fabric 5.
5	3423	Bowl	099	Light red paste 2.5 YR 7/8; fabric 2.
6	1090	Bowl	044	Red paste 10 R 5/6; fabric 2.
7	1688	Bowl	058	Red paste 10 R 5/6; fabric 1.
8	1696	Bowl	058	Red paste 10 R 5/6; fabric 2.
9	4338	Bowl	119	Pink paste 5 YR 8/3; fabric 5.
10	1677	Bowl	054	Light red paste 10 R 6/8; fabric 2.
11	4230	Bowl	122	Red paste 10 R 6/8; burnished ext.; fabric 1.
12	2918	Bowl	088	Red paste 10 R 5/8; red slip int. and ext.; fabric 1.
13	4339	Bowl	119	Pink paste 5 YR 8/4; red slip int. and ext.; fabric 5.
14	3414	Bowl	099	Pale red paste 10 R 6/3; red slip ext. and on rim int.; fabric 2.
15	1972	Bowl	066	Light red paste 2.5 YR 7/6; red slip ext.; fabric 2.

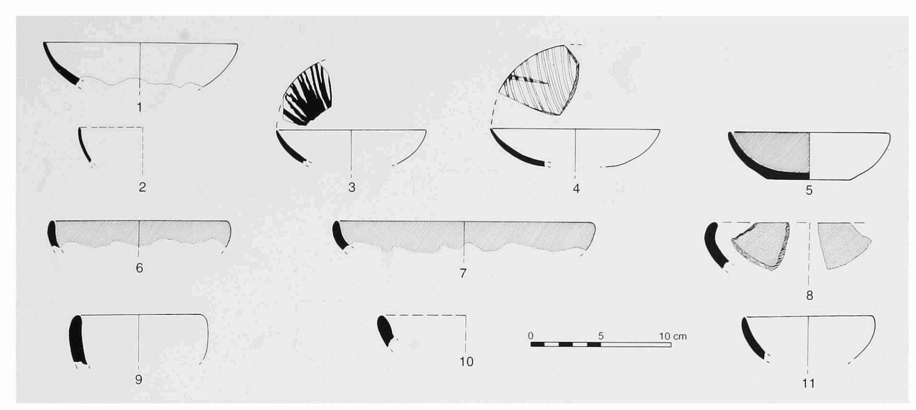


Plate 22.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	1051	Bowl	044	Very pale brown paste 10 YR 8/3; fabric 2.
2	4033	Bowl	117	Light redddish brown paste 2.5 YR 7/4; fabric 2.
3	1686	Bowl	058	Red paste 10 R 5/6; black paint int. fabric 1 (**photo 11**, p. 72).
4	1703	Bowl	058	Reddish grey paste 2.5 YR 5/1; burnished int.; fabric 1.
5	1552	Bowl	059	Light red paste 2.5 YR 7/6; red slip inside; height: 3.36 cm; diameter: 11.56 cm; fabric 2 (**photos 5 & 6**, p. 71).
6	4329	Bowl	119	Pale red paste 10 R 6/4; red slip int. and ext.; fabric 2.
7	4336	Bowl	119	Pink paste 5 YR 8/4; red slip int. and ext.; fabric 5.
8	4042	Bowl	117	Light red paste 2.5 YR 7/6; red slip int. and ext.; fabric 2.
9	4340	Bowl	119	Pinkish white paste 5 YR 8/2; fabric 5.
10	4328	Bowl	119	Light red paste 10 R 6/8; burnished int. and ext.; fabric 1.
11	3419	Bowl	090	Light red paste 2.5 YR 7/6; fabric 1.

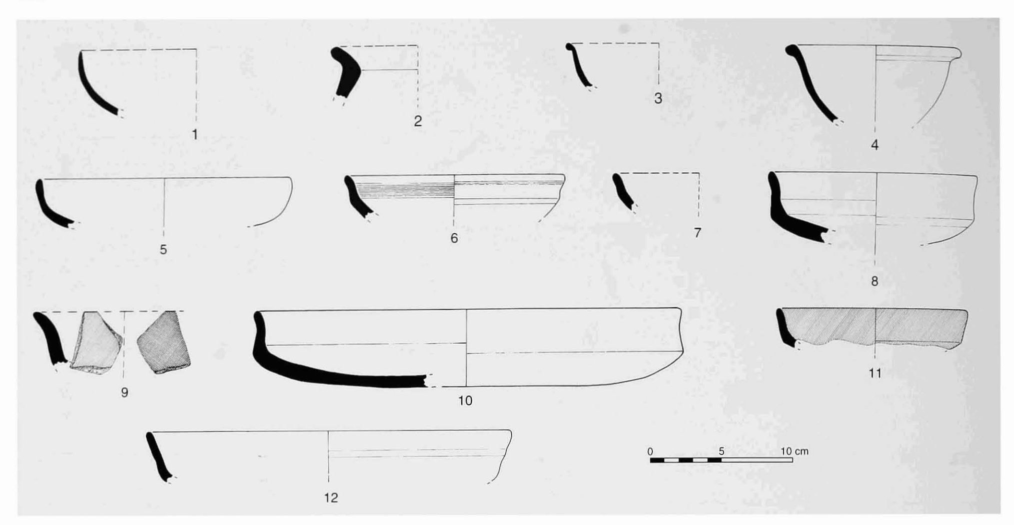


Plate 23.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	2988	Bowl	090	Light red paste 2.5 YR 6/8; fabric 1.
2	1687	Bowl	058	Reddish grey paste 10 R 5/1; fabric 1.
3	4252	Bowl	124	Light red paste 2.5 YR 7/8; fabric 2.
4	2714	Bowl	085	Light red paste 2.5 YR 6/6; fabric 2.
5	1070	Bowl	044	Red paste 10 R 5/8; fabric 1.
6	4250	Bowl	124	Pinkish white paste 5 YR 8/2; red slip int. and ext.; fabric 2.
7	2922	Bowl	088	Light red paste 2.5 YR 7/6; fabric 5.
8	1080	Bowl	044	Reddish yellow paste 5 YR 7/6; red slip ext.; fabric 2.
9	4366	Bowl	119	Pink paste 5 YR 8/4; red slip int. and ext.; fabric 5.
10	1557	Bowl	044	Pink paste 5 YR 8/3; fabric 5; height: 5.4 cm; diameter: 29.9 cm (**photo 7**, p. 71).
11	10549	Bowl	120	Light red paste 2.5 YR 7/6; red slip int. and ext.; fabric 5.
12	2923	Bowl	087	Red paste 10 R 5/8; fabric 2.

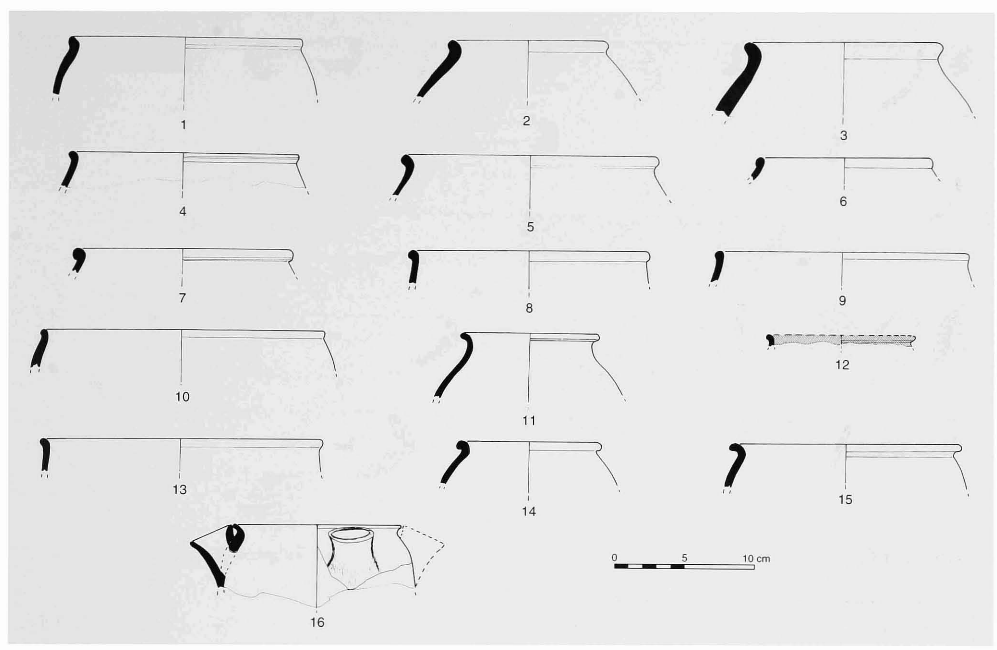


Plate 24.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	2958	Bowl	090	Light red paste 10 R 6/8; fabric 1.
2	2987	Bowl	090	Light red paste 2.5 YR 6/6; fabric 1.
3	3409	Bowl	099	Dark reddish grey paste 10 R 4/1; fabric 2.
4	4387	Bowl	127	Red paste 10 R 5/6; fabric 2.
5	3015	Bowl	090	Light red paste 2.5 YR 6/8; fabric 1.
6	2748	Bowl	085	Light red paste 2.5 YR 7/6; fabric 2.
7	997	Bowl	044	Light red paste 2.5 YR 7/8; fabric 1.
8	3018	Bowl	090	Reddish grey paste 2.5 YR 5/1; fabric 1.
9	2744	Bowl	085	Light red paste 2.5 YR 6/6; fabric 2.
10	1985	Bowl	067	Light reddish brown paste 2.5 YR 7/4; fabric 2.
11	1722	Bowl	059	Light red paste 2.5 YR 7/6; red slip ext.; fabric 2.
12	10567	Bowl	120	White paste 5 YR 8/1; red slip int. and ext.; fabric 5.
13	3388	Bowl	098	Light reddish brown paste 2.5 YR 7/4; fabric 1.
14	3368	Bowl	096	Red paste 10 R 5/6; fabric 1.
15	3372	Bowl	096	Red paste 10 R 5/6; fabric 1.
16	2991	Spouted Bowl	090	Very pale brown paste 10 YR 8/3; fabric 5 (**photo 8**, p. 71).

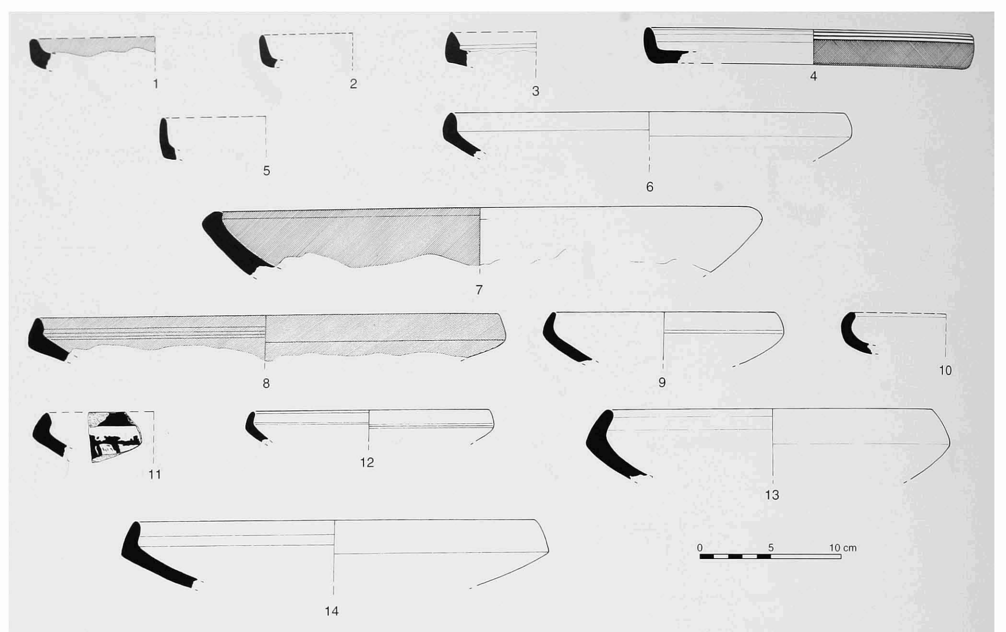


Plate 25.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	4249	Tray	124	Pinkish white paste 5 YR 8/2; red slip and burnished int.; fabric 2.
2	10565	Tray	120	Light red paste 2.5 YR 6/8; burnished int. and ext.; fabric 1.
3	1014 1015	Tray	044	Light red paste 10 R 5/8; red slip int.; fabric 1.
4	4332	Tray	119	Light red paste 10 R 6/8; burnished ext. and int.; red slip ext.; fabric 1.
5	1674	Platter-bowl	054	Light red paste 10 R 6/6; burnished int. and ext.; fabric 5.
6	4212	Platter-bowl	121	Red paste 10 R 4/8; fabric 1.
7	10544	Platter-bowl	120	Pinkish white paste 5 YR 8/2; red slip int.; fabric 2.
8	4068	Platter-bowl	117	Light red paste 2.5 YR 6/8; red slip int. and ext.; fabric 1.
9	4268	Platter-bowl	125	Light red paste 10 R 6/6; burnished ext.; fabric 1.
10	3358	Platter-bowl	096	Red paste 10 R 5/6; fabric 1.
11	1736	Platter-bowl	055	Red paste 10 R 6/8; black slip int. fabric 1.
12	4255	Platter-bowl	124	Pinkish white paste 5 YR 8/2; burnished int. and ext.; fabric 5.
13	1982	Platter-bowl	067	Red paste 10 R 5/8; fabric 1.
14	1739	Platter-bowl	055	Light red paste 10 R 6/6; fabric 1.

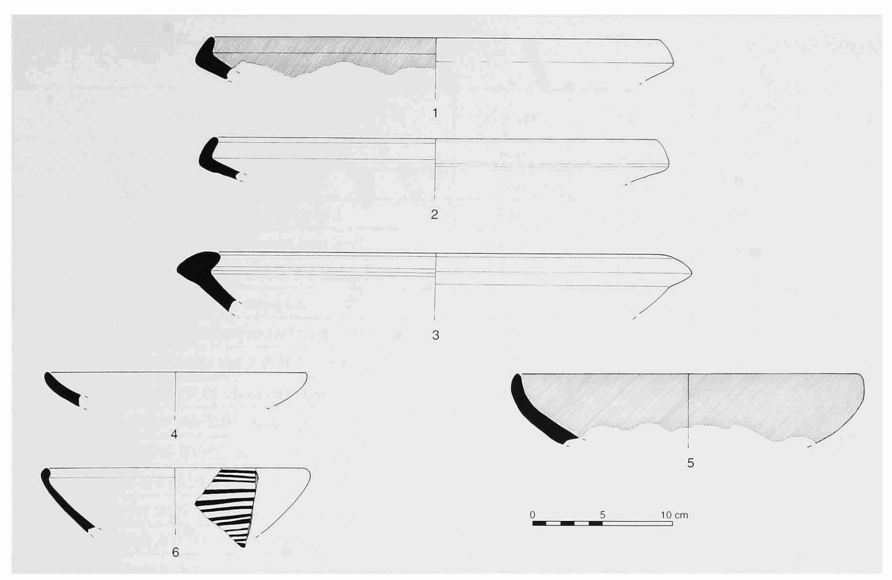


Plate 26.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	1698	Platter-bowl	058	Light red paste 10 R 6/8; red slip int.; burnished ext. and int.; fabric 1.
2	4248	Platter-bowl	124	Light red paste 2.5 YR 6/8; burnished int. and ext.; fabric 1.
3	4257	Platter-bowl	125	Light red paste 10 R 6/8; burnished ext.; fabric 1.
4	4334	Platter-bowl	119	Pink paste 5 YR 8/4; red slip int. and ext.; fabric 5.
5	4324	Platter-bowl	119	Pink paste 5 YR 8/4; red slip int. and ext.; fabric 5.
6	4234	Platter-bowl	122	Light red paste 10 R 6/8; black painted horizontal bands on the ext.; fabric 2.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	2717	Jar / Jug	085	Reddish grey paste 10 R 5/1; fabric 1.
2	2655	Jar / Jug	085	Pink paste 7.5 YR 8/3; fabric 1.
3	3350	Jar / Jug	096	Light red paste 2.5 YR 7/8; fabric 1.
4	3341	Jar / Jug	096	Very pale brown paste 10 YR 8/3; fabric 2.
5	4343	Jar / Jug	119	Pink paste 5 YR 8/4; red slip int. and ext.; fabric 5.
6	10560	Jug	120	Red paste 10 R 5/8; fabric 1.
7	2901	Jar / Jug	088	Very pale brown paste 10 YR 8/2; fabric 2.
8	1712	Jar / Jug	058	Pink paste 5 YR 8/3; red slip int. and ext.; fabric 5.
9	1689	Jar / Jug	058	Weak red paste 10 R 5/2; fabric 2.
10	10543	Jar / Jug	120	Red paste 10 R 5/6; fabric 1.
11	3011	Jar / Jug	090	Light red paste 2.5 YR 6/6; fabric 5.
12	10547	Jar / Jug	120	Reddish grey paste 10 R 5/1; fabric 2.
13	4278	Jar / Jug	126	Dark reddish grey paste 10 R 4/1; fabric 3.
14	4259	Jar / Jug	125	Light red paste 10 R 6/8; fabric 1.
15	4260	Jar / Jug	125	Light red paste 10 R 6/8; horizontal incised lines ext.; fabric 1.
16	4275	Jar / Jug	126	Light red paste 2.5 YR 7/8; fabric 2.
17	3364	Jar / Jug	096	Light red paste 10 R 6/6; fabric 2.
18	2754	Jar / Jug	085	Light red paste 2.5 YR 7/8; fabric 1.
19	10545	Jar / Jug	120	Reddish grey paste 10 R 5/1; fabric 3.
20	1061	Jar / Jug	044	Light red paste 2.5 YR 7/8; fabric 1.
21	1072	Jar / Jug	044	Weak red paste 10 R 5/2; fabric 3.

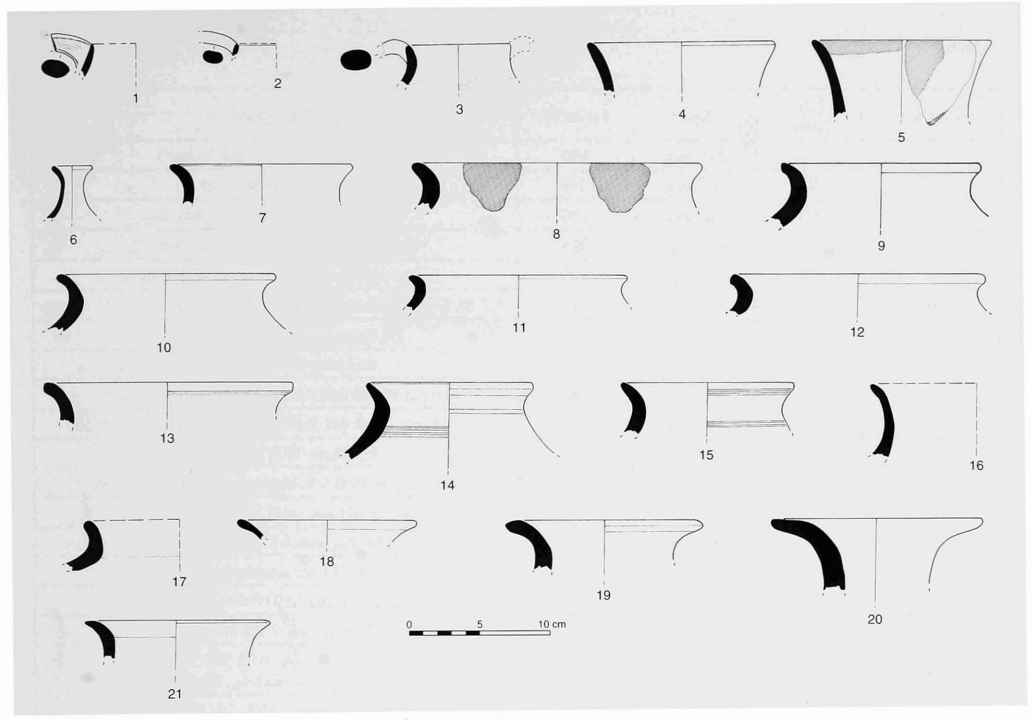


Plate 27.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	3012	Jar / Jug	090	Light red paste 10 R 6/8; fabric 1.
2	3440	Jar / Jug	089	Red paste 10 R 5/8; fabric 1.
3	3028	Jar / Jug	090	Pale red paste 10 R 6/3; fabric 5.
4	2737	Jar / Jug	085	Reddish grey paste 2.5 YR 6/1; fabric 2.
5	3348	Jar / Jug	096	Very pale brown paste 10 YR 8/3; fabric 1.
6	4239	Jar / Jug	122	Reddish grey paste 10 R 5/1; fabric 3.
7	4323	Jar / Jug	119	Red paste 10 R 5/6; fabric 1.
8	2732	Jar / Jug	085	Red paste 10 R 5/6; fabric 3.
9	4245	Jar / Jug	122	Red paste 10 R 5/8; smoke-blackened rim; fabric 3.
10	4262	Jar / Jug	125	Light red paste 10 R 6/8; horizontal incised lines ext.; fabric 1.
11	1673	Jar / Jug	054	Red paste 10 R 5/6; fabric 3.
12	3389	Jar / Jug	098	Light red paste 10 R 6/8; black slip int. and ext.; fabric 1.
13	3428	Jar / Jug	089	Red paste 10 R 5/8; fabric 1.
14	3370	Jar / Jug	096	Light red paste 2.5 YR 6/6; fabric 2.
15	10561	Jar / Jug	120	Red paste 10 R 5/8; smoke-blackened rim; fabric 2.
16	1970	Jar / Jug	066	Light red paste 10 R 6/6; fabric 2.
17	1002	Jar / Jug	044	Light red paste 2.5 YR 6/6; fabric 2.
18	17053	Jug	085	Red paste 10 R 5/8; black wash on ext., vertical burnishing; fabric 1 (**photo 9**, p. 71).
19	2671	Neck	085	Light red paste 2.5 YR 7/6; fabric 2.
20	3330	Jug	096	Reddish grey paste 2.5 YR 6/1; fabric 2.
21	1704	Jar / Jug	058	Red paste 10 R 5/8; fabric 3.
22	2896	Jar / Jug	088	Light red paste 10 R 5/8; fabric 3.
23	1711	Jar / Jug	058	Pink paste 7.5 YR 8/4; fabric 5.
24	2686	Jar / Jug	085	Light red paste 2.5 YR 6/8; fabric 1.
25	2683	Jar / Jug	085	Light red paste 2.5 YR 6/8; fabric 2.

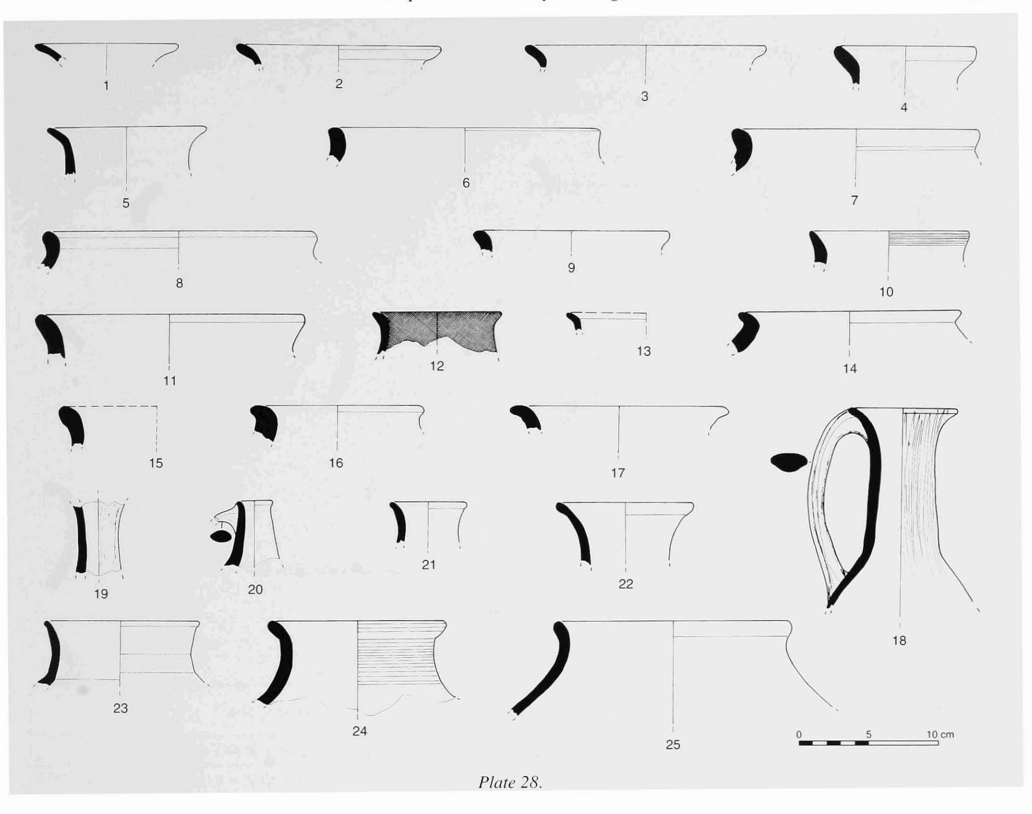


Plate 28.

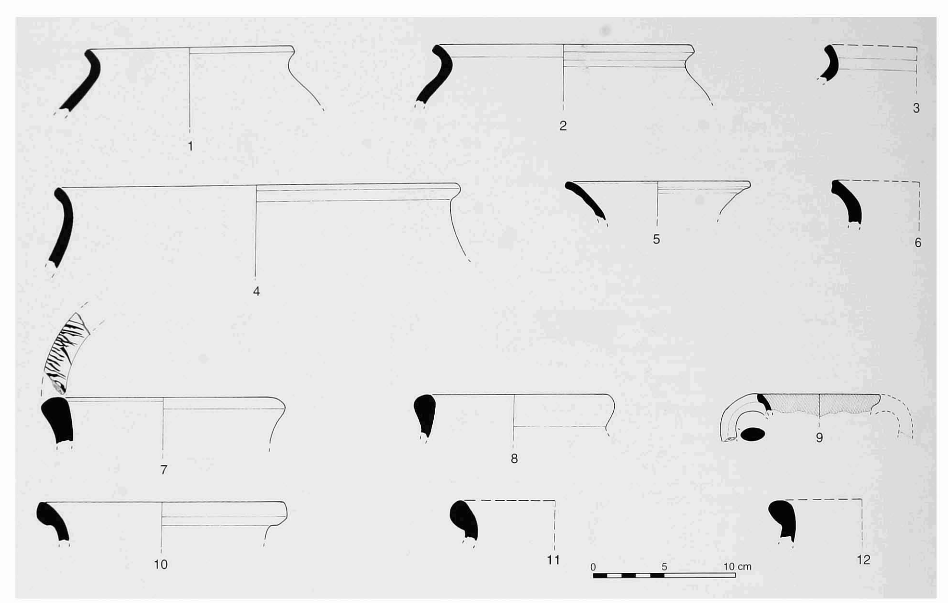


Plate 29.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	1665	Jar / Jug	054	Light red paste 10 R 6/6; fabric 1.
2	3438	Jar / Jug	089	Weak red paste 10 R 5/4; fabric 1.
3	3434	Jar / Jug	089	Red paste 10 R 5/6; fabric 2.
4	2975	Jar / Jug	090	Light red paste 2.5 YR 6/8; fabric 1.
5	4322	Jar / Jug	119	Red paste 10 R 5/6; fabric 1.
6	1690	Jar / Jug	058	Light red paste 10 R 6/6; fabric 5.
7	4314	Jar / Jug	119	Pale red paste 10 R 6/3; burnishing on the rim; fabric 2.
8	2747	Jar / Jug	085	Red paste 2.5 YR 7/6; fabric 3.
9	2921	Jar / Jug	088	Light red paste 2.5 YR 7/6; red slip int. and ext.; fabric 2.
10	3014	Jar / Jug	090	Light red paste 10 R 6/6; fabric 1.
11	1719	Jar / Jug	059	Weak red paste 10 R 4/2; fabric 3.
12	1980	Jar / Jug	066	Red paste 10 R 5/6; fabric 1.

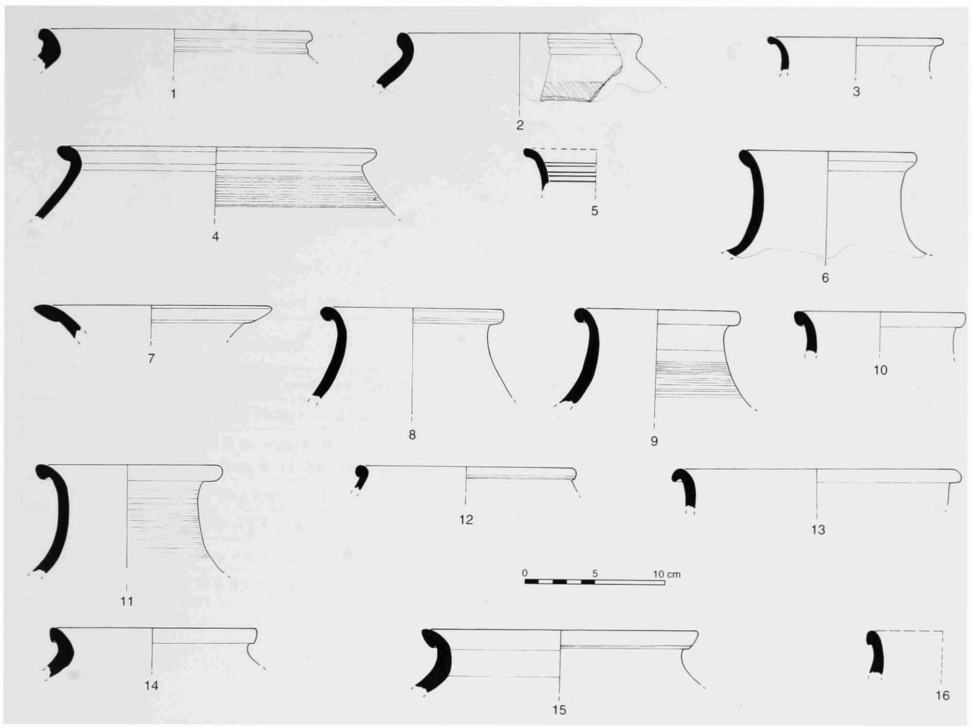


Plate 30.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	2699	Jar / Jug	085	Red paste 10 R 5/6; fabric 2.
2	1575	Jar / Jug	066	Light red paste 2.5 YR 6/8; incisions ext.; fabric 2.
3	3377	Jar / Jug	098	Red paste 10 R 5/6; fabric 2.
4	2677	Jar / Jug	085	Light red paste 2.5 YR 7/6; light horizontal combing ext.; fabric 2.
5	1978	Jar / Jug	066	Red paste 10 R 5/8; red slip int.; fabric 2.
6	2759	Jar / Jug	085	Light red paste 2.5 YR 7/8; fabric 2.
7	3375	Jar / Jug	098	Light red paste 2.5 YR 6/8; fabric 1.
8	2689	Jar / Jug	085	Light red paste 2.5 YR 6/8; fabric 1.
9	2700	Jar / Jug	085	Red paste 10 R 5/8; fabric 1.
10	2905	Jar / Jug	088	Light red paste 10 R 6/8; fabric 2.
11	2691	Jar / Jug	085	Light red paste 10 R 6/8; fabric 2.
12	1077	Jar / Jug	044	Light red paste 2.5 YR 7/8; fabric 1.
13	3359	Jar / Jug	096	Light red paste 10 R 6/6; fabric 1.
14	2902	Jar / Jug	088	Red paste 10 R 5/6; fabric 2.
15	2983	Jar / Jug	090	Dark reddish grey paste 2.5 YR 4/1; fabric 1.
16	4058	Jar / Jug	117	Light red paste 2.5 YR 6/8; fabric 2.

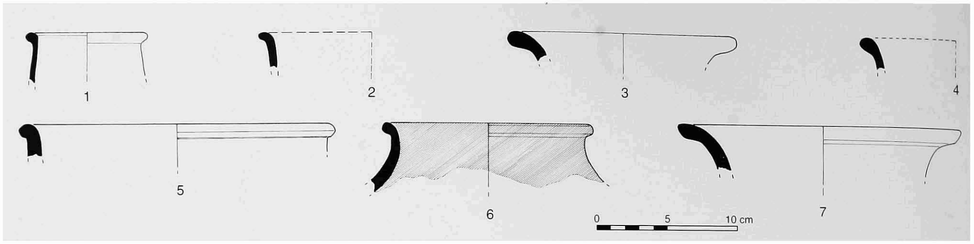


Plate 31.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	2756	Jar / Jug	085	Light reddish brown paste 2.5 YR 7/4; fabric 2.
2	3346	Jar / Jug	096	Very pale brown paste 10 YR 7/3; fabric 2.
3	10548	Jar / Jug	120	Red paste 10 R 5/8; black paint int. and ext. in poor condition; fabric 2.
4	2749	Jar / Jug	085	Very pale brown paste; light grey 10 YR 7/4; fabric 2.
5	3004	Jar / Jug	090	Pale red paste 2.5 YR 6/2; fabric 3.
6	1969	Jar / Jug	066	Light red paste 2.5 YR 7/8; red slip int. and ext.; fabric 2.
7	3387	Jar / Jug	098	Light red paste 2.5 YR 6/8; fabric 1.

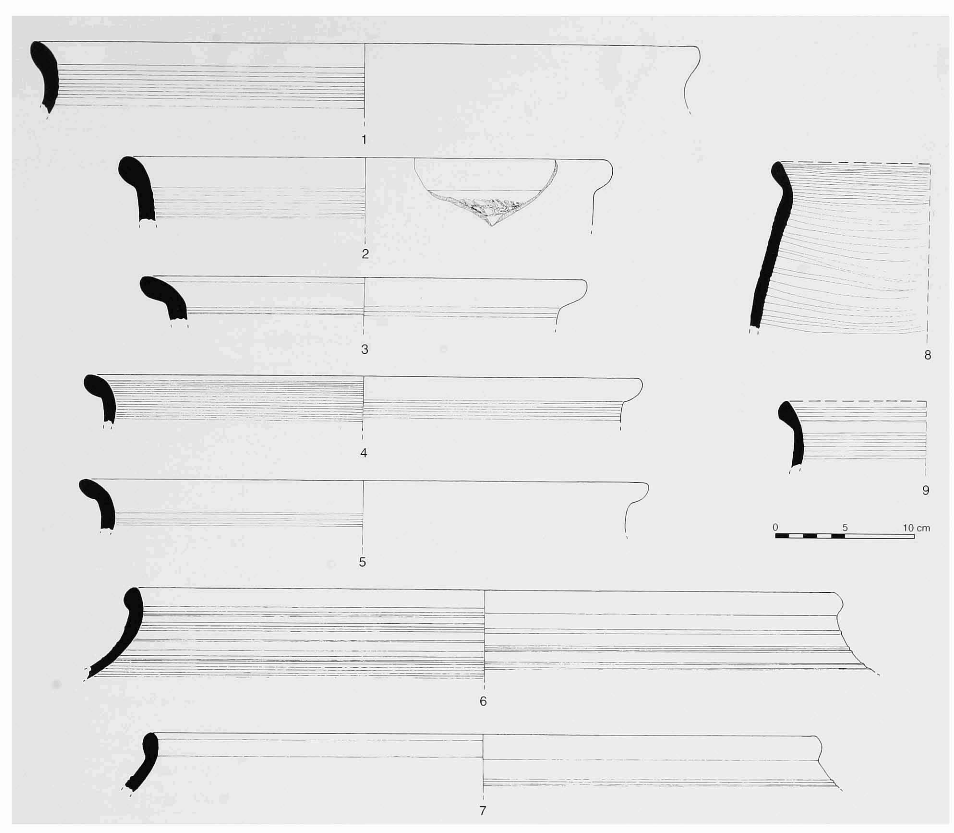


Plate 32.

STRATUM 4

Number	Reg. Number	Object	Locus Nº	Description
1	2200	Pithos	088	Red paste 10 R 5/6; fabric 1.
2	1469	Pithos	053	Light red paste 2.5 YR 7/8; fabric 2.
3	4064	Pithos	117	Light red paste 2.5 YR 7/6; fabric 1.
4	2929	Pithos	090	Red paste 10 R 5/6; light horizontal combing ext.; fabric 2.
5	1668 1679	Pithos	054	Light red paste 10 R 6/8; fabric 1.
6	2676	Pithos	085	Light red paste 10 R 6/8; light horizontal combing ext.; fabric 1.
7	2722	Pithos	085	Light red paste 10 R 6/8; light horizontal combing ext.; fabric 2.
8	2729	Pithos	085	Light red paste 10 R 6/8; fabric 1.
9	2693	Pithos	085	Light red paste 2.5 YR 6/6; fabric 2.

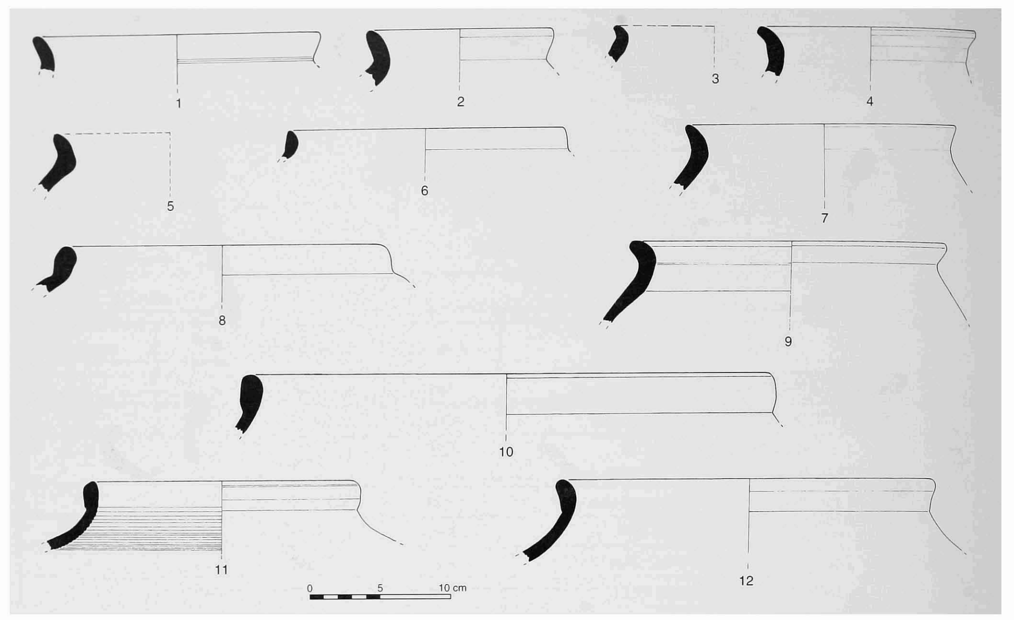


Plate 33.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	6093	Hole-mouth	121	Light red paste 10 R 6/6; fabric 3.
2	4331	Hole-mouth	119	Pale red paste 10 R 6/4; fabric 3.
3	1670	Hole-mouth	054	Red paste 10 R 5/8; fabric 3.
4	1692	Hole-mouth	058	Red paste 10 R 5/6; fabric 2.
5	1699	Hole-mouth	058	Pink paste 5 YR 8/3; red slip ext.; fabric 5.
6	2758	Hole-mouth	085	Light red paste 2.5 YR 7/8; fabric 2.
7	3344	Hole-mouth	096	Very pale brown paste 10 YR 8/3; fabric 2.
8	1666	Hole-mouth	054	Red paste 10 R 5/6; fabric 2.
9	2643	Hole-mouth	085	Light red paste 2.5 YR 6/6; horizontal combing ext.; fabric 2.
10	2721	Hole-mouth	085	Red paste 10 R 5/6; black smockened-rim; fabric 2.
11	2981	Hole-mouth	090	Weak red paste 10 R 5/4; fabric 1.
12	2968	Hole-mouth	090	Light red paste 2.5 YR 6/8; fabric 1.

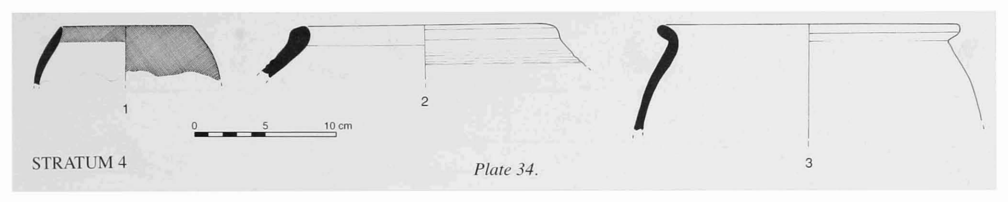


Plate 34.

Number	Reg. Number	Object	Locus N°	Description
1	4383	Hole-mouth	119	Light red paste 10 R 6/6; black slip ext. and int. on the rim; fabric 2.
2	1983	Hole-mouth	067	Light red paste 10 R 6/8; horizontal combing ext.; fabric 2.
3	17054	Hole-mouth	054	Light red paste 10 R 6/6; fabric 2.

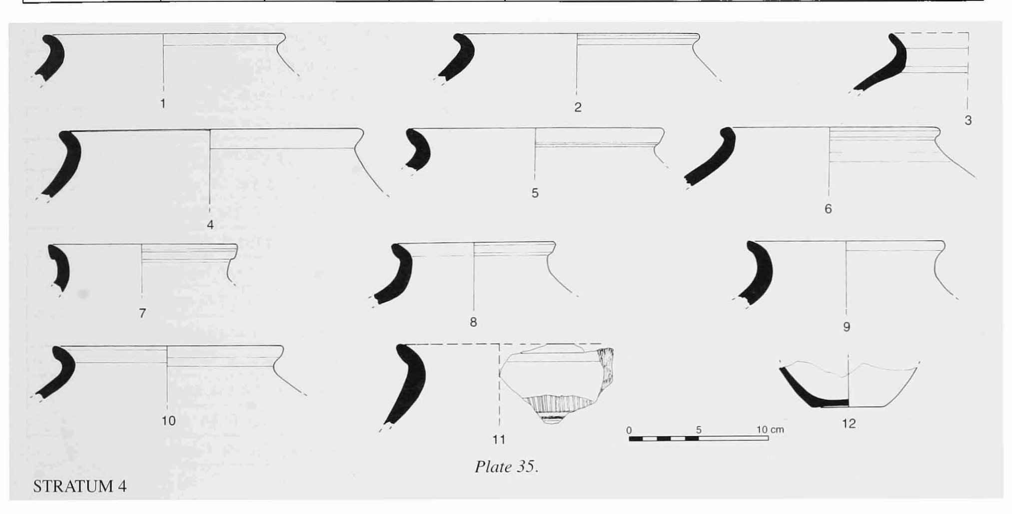


Plate 35.

Number	Reg. Number	Object	Locus N°	Description
1	995	Cooking pot	044	Dark reddish grey paste 2.5 YR 4/1; fabric 3.
2	1073	Cooking pot	044	Reddish grey paste 2.5 YR 5/1; fabric 3.
3	1008	Cooking pot	044	Dark reddish grey paste 10 R 4/1; fabric 3.
4	2964	Cooking pot	090	Pale red paste 2.5 YR 6/2; fabric 1.
5	4059	Cooking pot	117	Red paste 10 R 5/6; fabric 3.
6	2690	Cooking pot	085	Light red paste 10 R 6/8; fabric 2.
7	4232	Cooking pot	122	Reddish grey paste 10 R 5/1; fabric 3.
8	3417	Cooking pot	099	Weak red paste 10 R 4/3; fabric 3.
9	2885	Cooking pot	088	Red paste 10 R 5/6; fabric 3.
10	2906	Cooking pot	088	Red paste 10 R 5/6; fabric 1.
11	3400	Cooking pot	098	Dark reddish grey paste 2.5 YR 4/1; fabric 1.
12	1717	Lamp	058	Light red paste 10 R 6/6; fabric 1.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	2932	Base	087	Light red paste 10 R 6/8; fabric 2.
2	4276	Base	126	Pink paste 7.5 YR 7/4; fabric 2.
3	1702	Base	058	Light red paste 10 R 6/6; fabric 1.
4	2946	Base	090	Light red paste 10 R 6/8; fabric 1.
5	4281	Base	126	Reddish brown paste 2.5 YR 5/4; fabric 2.
6	4315	Base	119	Pink paste 5 YR 8/4; fabric 5.
7	4264	Base	125	Red paste 10 R 5/8; fabric 1.
8	2986	Base	090	Red paste 10 R 5/8; fabric 1.
9	1078	Base	044	Red paste 10 R 5/6; fabric 3.
10	1734	Base	055	Pale red paste 2.5 YR 7/2; fabric 2.
11	4388	Base	127	Light red paste 10 R 6/8; fabric 2.
12	4266	Base	125	Weak red paste 10 R 5/4; fabric 1.
13	1683	Base	058	Light red paste 10 R 6/8; fabric 1.
14	3427	Base	089	Dark reddish grey paste 10 R 4/1; fabric 2.
15	1708	Base	058	Light reddish brown paste 2.5 YR 7/4; red slip int.; fabric 5.
16	2954	Base	090	Pink paste 7.5 YR 8/4; fabric 5.
17	4063	Base	117	Red paste 2.5 YR 5/8; fabric 1.
18	1695	Base	058	Pink paste 7.5 YR 8/4; fabric 5.
19	1737	Base	055	Light red paste 2.5 YR 7/6; fabric 2.
20	1977	Base	066	Light red paste 10 R 6/8; burnished int.; fabric 1.
21	999	Base	044	Reddish grey paste 10 R 5/1; fabric 1.
22	2886	Base	088	Weak red paste 10 R 5/4; fabric 1.
23	1710	Base	058	Reddish grey paste 10 R 5/1; fabric 5.
24	1065	Base	044	Pink paste 7.5 YR 7/4; fabric 2.

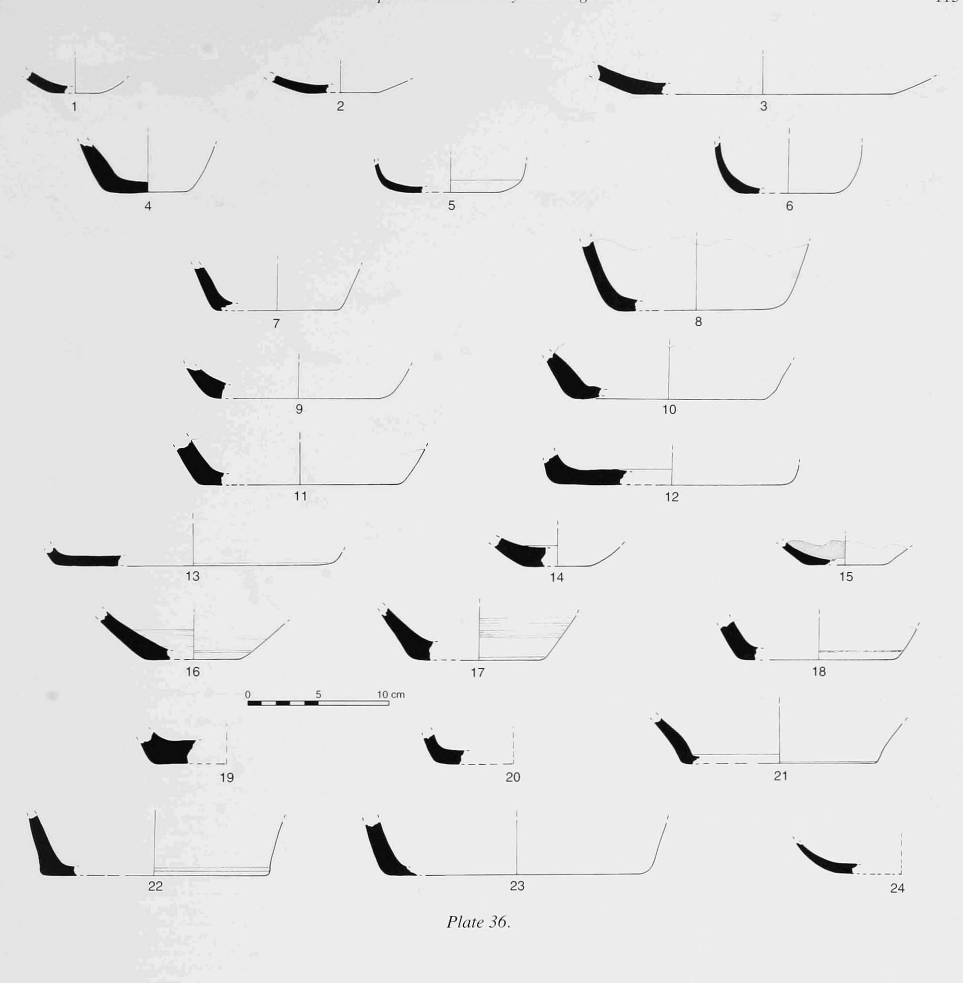


Plate 36.

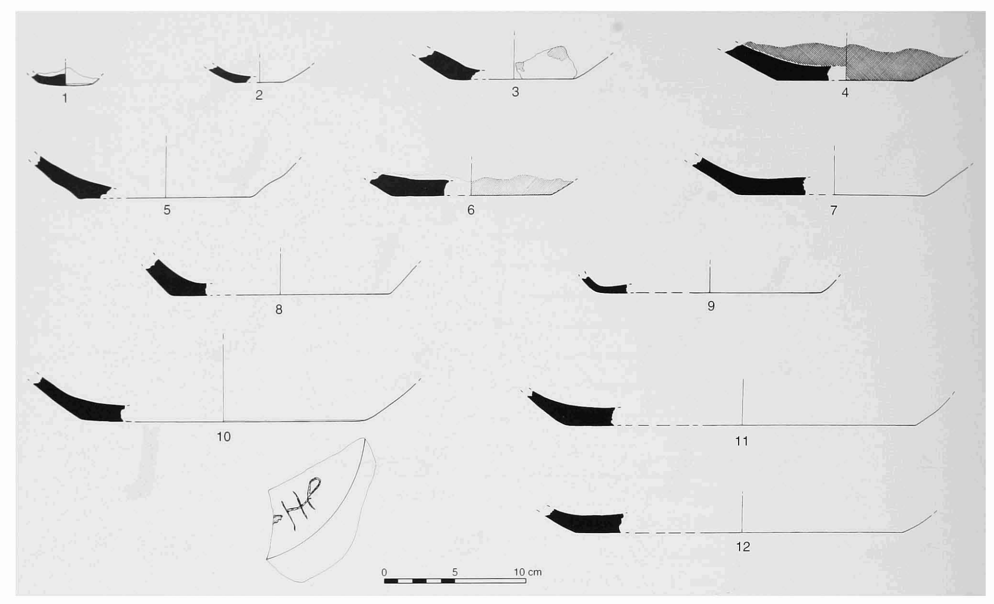


Plate 37.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	4384	Base	127	Red paste 10 R 5/8; fabric 1.
2	10563	Base	120	Weak red paste 10 R 4/3; fabric 1.
3	4330	Base	119	Pink paste 5 YR 8/4; red slip ext.; fabric 5.
4	4382	Base	119	Light red paste 10 R 6/4; black slip int. and ext.; fabric 5.
5	10562	Base	120	Light red paste 2.5 YR 7/6; red slip int.; fabric 5.
6	4318	Base	119	Pink paste 5 YR 8/4; red slip ext.; fabric 5.
7	4327	Base	119	Reddish grey paste 10 R 5/1; fabric 2.
8	3397	Base	098	Red paste 10 R 5/8; fabric 1.
9	2997	Base	090	Light red paste 10 R 6/8; fabric 1.
10	2688	Base	085	Very pale brown paste 10 YR 8/4; incisions ext.; fabric 2.
11	4071	Base	117	Light reddish brown paste 2.5 YR 7/6; fabric 2.
12	4070	Base	117	Light reddish brown paste 2.5 YR 7/6; fabric 2.

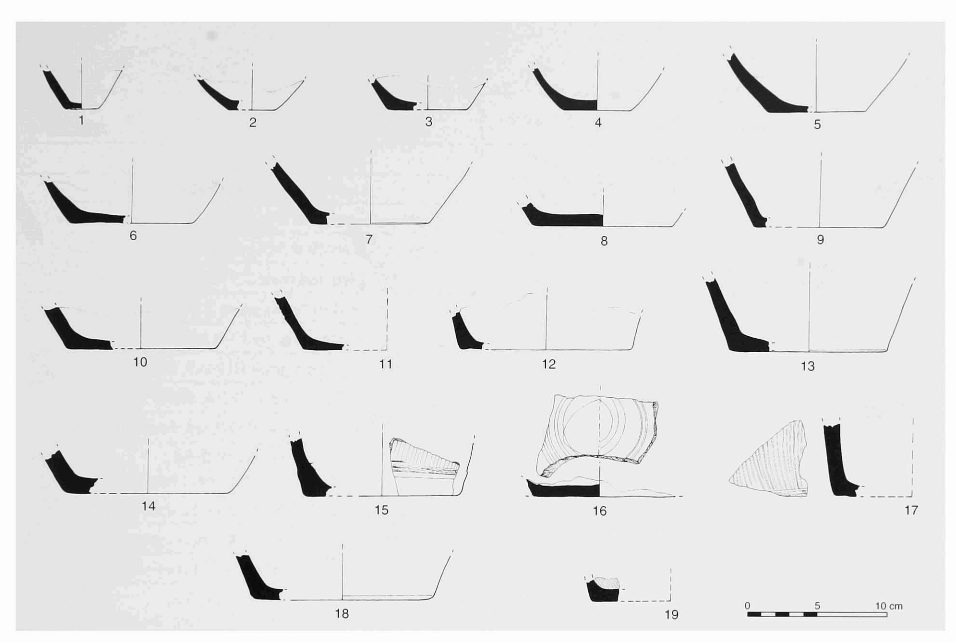


Plate 38.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	4247	Base	122	Red paste 10 R 5/8; fabric 1.
2	4386	Base	127	Red paste 10 R 5/8; fabric 1.
3	4390	Base	127	Light red paste 10 R 6/8; fabric 1.
4	2650	Base	085	Red paste 10 R 5/6; fabric 1.
5	3381	Base	098	White paste 7.5 YR 8/1; fabric 5.
6	2642	Base	085	Light red paste 10 R 6/8; fabric 1.
7	2679	Base	085	Light reddish brown paste 2.5 YR 6/4; fabric 2.
8	3401	Base	098	Red paste 10 R 5/6; fabric 1.
9	2898	Base	088	Red paste 10 R 5/6; fabric 1.
10	4391 4389	Base	127	Reddish grey paste 10 R 5/1; fabric 1.
11	4233	Base	122	Light red paste 10 R 6/8; fabric 1.
12	1735	Base	055	Red paste 10 R 5/8; fabric 1.
13	2945	Base	090	Light reddish brown paste 2.5 YR 7/4; fabric 5.
14	4270	Base	125	Light red paste 10 R 6/8; fabric 1.
15	3363	Base	096	Light red paste 10 R 6/6; vertical combing ext.; fabric 1.
16	4256	Base	124	Weak red paste 10 R 5/3; fabric 1.
17	3356	Base	096	Red paste 2.5 YR 5/6; vertical combing ext.; fabric 1.
18	1007	Base	044	Light red paste 10 R 6/6; fabric 1.
19	2916	Base	088	Red paste 10 R 5/6; red slip int.; fabric 1.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	2944	Base	090	Pale red paste 2.5 YR 6/2; fabric 1.
2	2971	Base	090	Light red paste 2.5 YR 7/6; fabric 2.
3	3365	Base	096	Light red paste 10 R 6/6; pattern combing ext.; fabric 1.
4	1716	Base	058	Weak red paste 10 R 5/2; pattern combing ext.; fabric 1.
5	3338	Base	096	Light red paste 2.5 YR 6/6; fabric 1
6	4213	Base	121	Light reddish brown paste 2.5 YR 7/4; fabric 2.
7	1713	Base	058	Light red paste 10 R 6/8; fabric 1.
8	1707	Base	058	Light red paste 10 R 6/8; fabric 1.
9	4251	Base	124	Red paste 10 R 5/6; fabric 1.
10	1054	Base	044	Light red paste 10 R 6/8; fabric 2.
11	4051 4055	Base	117	Red paste 10 R 5/6; horizontal combing ext.; fabric 1.
12	2648	Base	085	Light red paste 10 R 6/6; horizontal combing ext.; fabric 2.
13	4073	Base	117	Light red paste 2.5 YR 6/8; horizontal combing ext.; fabric 2.
14	1721	Base	059	Light red paste 10 R 6/6; horizontal combing ext.; fabric 1.
15	2890	Base	088	Red paste 10 R 5/8; incised decoration ext.; herringbone design; fabric 1.
16	2899	Base	088	Weak red paste 10 R 5/4; pattern combing ext.; fabric 1.

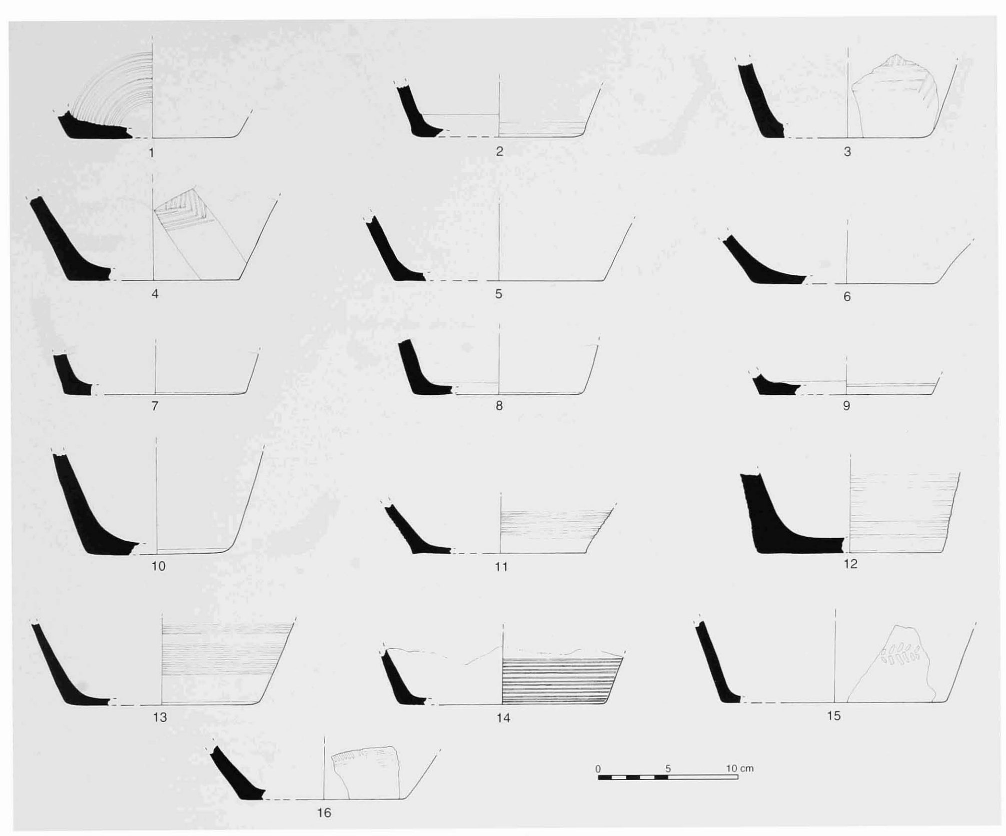


Plate 39.

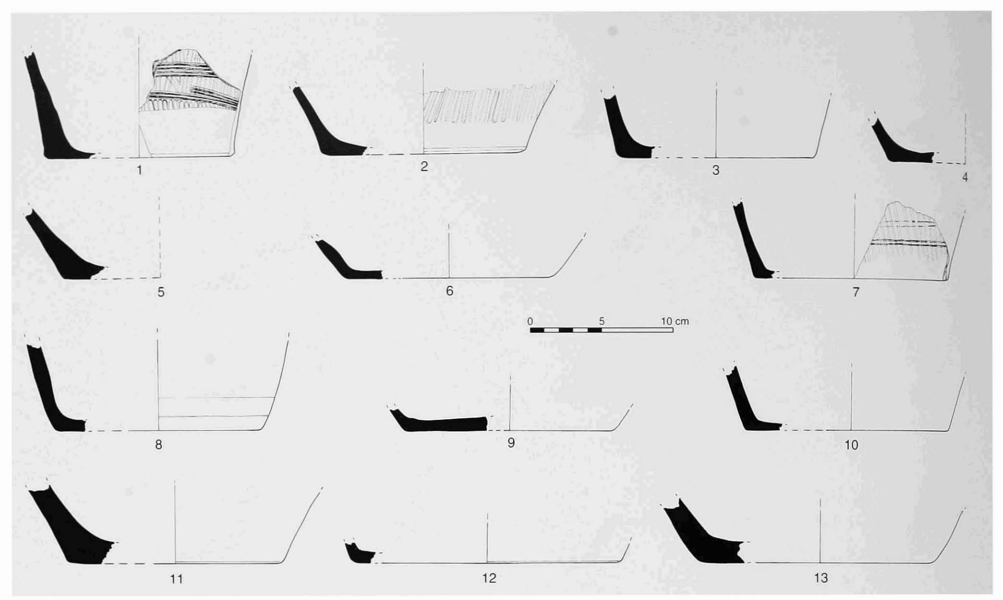


Plate 40.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	2712	Base	085	Light red paste 10 R 6/8; pattern combing ext.; fabric 1.
2	2967	Base	090	Light red paste 10 R 6/8; vertical combing ext.; fabric 1.
3	3345	Base	096	Weak red paste 10 R 5/2; fabric 1.
4	3006	Base	090	Light red paste 10 R 6/6; fabric 1.
5	1979	Base	066	Pinkish white paste 7.5 YR 8/2; fabric 2.
6	2666	Base	085	Light reddish brown paste 2.5 YR 7/4; fabric 2.
7	4316	Base	119	Light red paste 10 R 6/4; vertical and horizontal combing ext.; fabric 1.
8	4326	Base	119	Weak red paste 10 R 5/4; fabric 1.
9	4215	Base	121	Red paste 2.5 YR 5/6; fabric 1.
10	3384 3374	Base	098	Red paste 10 R 5/8; fabric 1.
11	4335	Base	119	Light red paste 10 R 6/8; fabric 2.
12	1006	Base	044	Red paste 10 R 5/8; fabric 1.
13	1660	Base	057	Pink paste 5 YR 8/4; fabric 5.

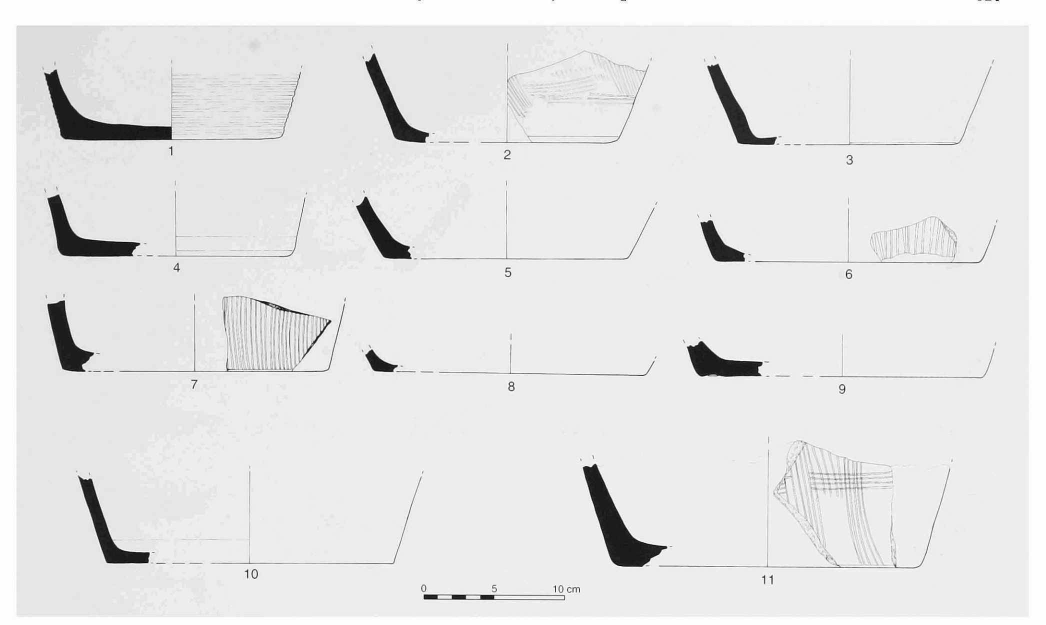


Plate 41.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	2687	Base	085	Light reddish brown paste 2.5 YR 7/4; horizontal combing ext.; fabric 1.
2	2685	Base	085	Light red paste 2.5 YR 6/6; pattern combing; fabric 1.
3	2969	Base	090	Red paste 10 R 5/8; light combing ext.; fabric 1.
4	4216	Base	121	Weak red paste 2.5 YR 5/2; fabric 1.
5	1701	Base	058	Light red paste 10 R 6/6; fabric 1.
6	1700	Base	058	Light red paste 10 R 6/8; vertical combing ext.; fabric 1.
7	2950	Base	090	Weak red paste 10 R 5/2; vertical combing ext.; fabric 1.
8	3433	Base	089	Weak red paste 10 R 5/4; fabric 1.
9	4217	Base	121	Light red paste 2.5 YR 7/6; fabric 2.
10	4072	Base	117	Red paste 2.5 YR 5/8; fabric 1.
11	1718	Base	058	Light red paste 10 R 6/8; pattern combing ext.; fabric 1.

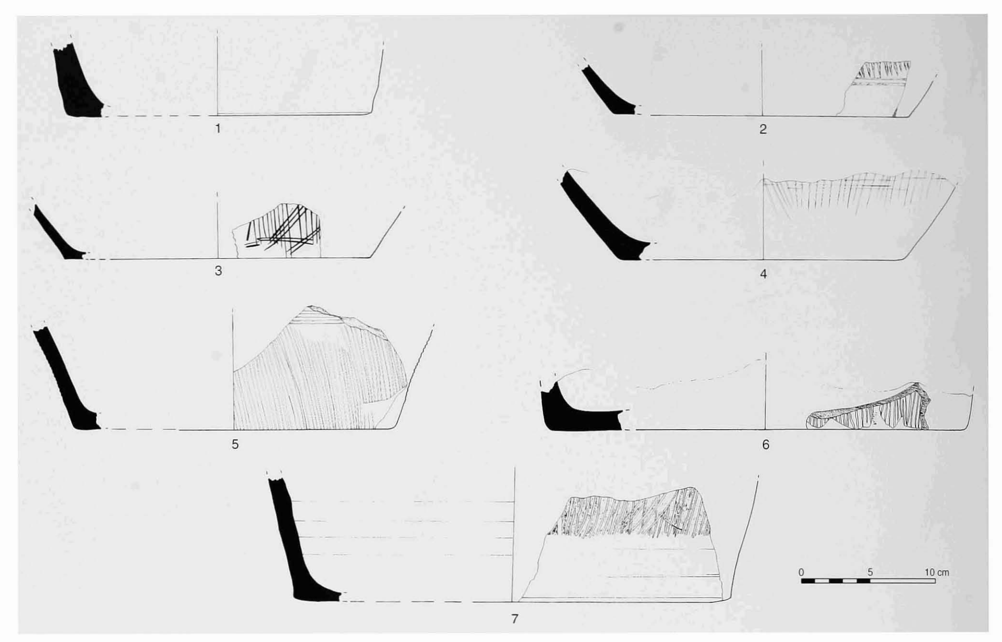


Plate 42.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	3354	Base	096	Light red paste 10 R 6/6; fabric 1.
2	2647	Base	085	Light red paste 10 R 6/8; pattern combing ext.; fabric 1.
3	4319	Base	119	Weak red paste 10 R 5/4; pattern combing ext.; fabric 1.
4	1655	Base	057	Reddish grey paste 2.5 YR 5/1; pattern combing ext.; fabric 1.
5	2943	Base	090	Light red paste 10 R 6/8; pattern combing ext.; fabric 1.
6	1723	Base	059	Light red paste 10 R 6/8; pattern combing ext.; fabric 1.
7	2684	Base	085	Light red paste 2.5 YR 7/6; pattern combing ext.; fabric 2.

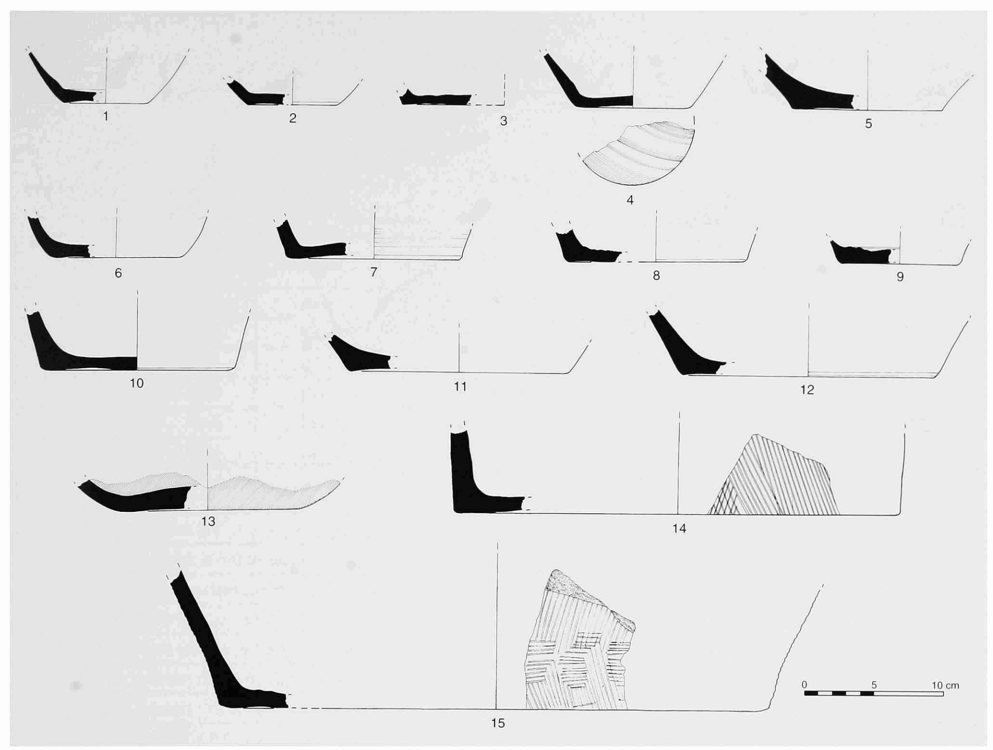


Plate 43.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	2730	Base	085	Light reddish brown paste 2.5 YR 7/6; vertical burnishing ext.; fabric 2.
2	2752	Base	085	Dark reddish grey paste 2.5 YR 4/1; fabric 1.
3	2656	Base	085	Light red paste 2.5 YR 6/6; fabric 2.
4	2949	Base	090	Reddish grey paste 2.5 YR 5/1; fabric 1.
5	2942	Base	090	Pink paste 5 YR 8/4; fabric 5.
6	1715	Base	058	Pink paste 5 YR 8/4; fabric 5.
7	2720	Base	085	Weak red paste 10 R 5/3; fabric 1.
8	3342	Base	096	Weak red paste 10 R 5/2; fabric 1.
9	3373	Base	098	Reddish grey paste 10 R 5/1; fabric 1.
10	3393	Base	098	Reddish grey paste 10 R 6/1; fabric 1.
11	3413	Base	099	Weak red paste 10 R 4/3; fabric 2.
12	1682	Base	058	Light red paste 10 R 6/8; fabric 2.
13	1981	Base	066	Pink paste 5 YR 8/4; red slip int. and ext.; fabric 5.
14	2641	Base	085	Light red paste 10 R 6/8; pattern combing ext.; fabric 2.
15	4285	Base	126	Red paste 10 R 4/8; pattern combing ext.; fabric 1.

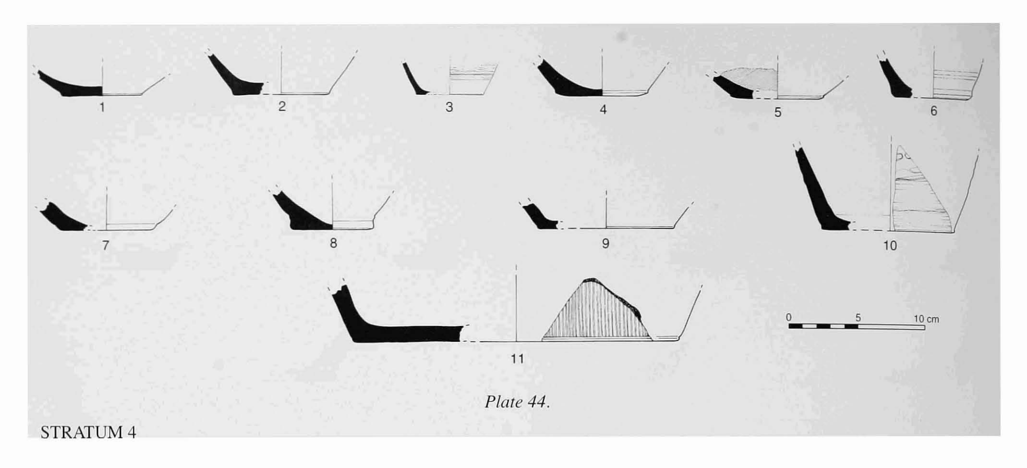


Plate 44.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	1071	Base	044	Very pale brown paste 10 YR 8/4; fabric 2.
2	2955	Base	090	Light red paste 10 R 6/8; fabric 1.
3	4243	Base	122	Light red paste 10 R 6/8; horizontal combing ext.; fabric 1.
4	2947	Base	090	Light red paste 2.5 YR 7/8; red slip ext.; fabric 5.
5	2897	Base	088	Light red paste 2.5 YR 7/6; red slip int.; fabric 2.
6	4254	Base	124	Weak red paste 10 R 5/2; fabric 1.
7	2707	Base	085	Light red paste 10 R 6/6; fabric 5.
8	2682	Base	085	Light reddish brown paste 2.5 YR 7/4; fabric 2.
9	3392	Base	098	Red paste 10 R 5/8; fabric 1.
10	2703	Base	085	Light red paste 10 R 6/6; combing ext.; fabric 1.
11	2937	Base	090	Light red paste 10 R 6/8; vertical combing ext.; fabric 1.

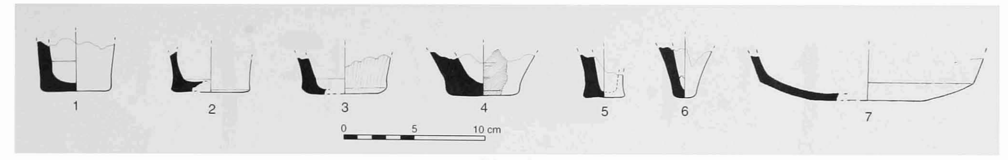


Plate 45.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	4385	Base	127	Red paste 10 R 5/8; fabric 2.
2	2959	Base	090	Reddish grey paste ext.; vertical burnishing ext.; fabric 1.
3	3361	Base	096	Red paste 10 R 5/6; vertical combing ext.; fabric 1.
4	2909	Base	088	Weak red paste 10 R 5/4; red slip ext.; fabric 2.
5	4214	Base	121	Red paste 10 R 5/8; fabric 1.
6	4034	Base	117	Red paste 2.5 YR 5/8; fabric 1.
7	4225	Base	122	Light red paste 10 R 6/8; fabric 2.

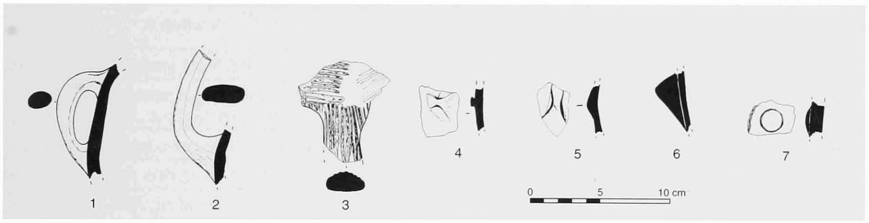


Plate 46.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	2965	Loop handle	090	Light red paste 2.5 YR 6/6; fabric 2.
2	2709	Loop handle	085	Red paste 2.5 YR 5/8; fabric 1.
3	1976	Loop handle	066	Reddish grey paste 10 R 5/1; pattern combing ext.; fabric 1.
4	1662	Lug handle	057	Weak red paste 10 R 5/4; fabric 1.
5	10569	Lug handle	120	Light red paste 10 R 6/8; fabric 2.
6	2993	Lug handle	090	Light reddish brown paste 2.5 YR 7/4; fabric 2.
7	4050	Lug handle	117	Light red paste 2.5 YR 7/6; fabric 2.

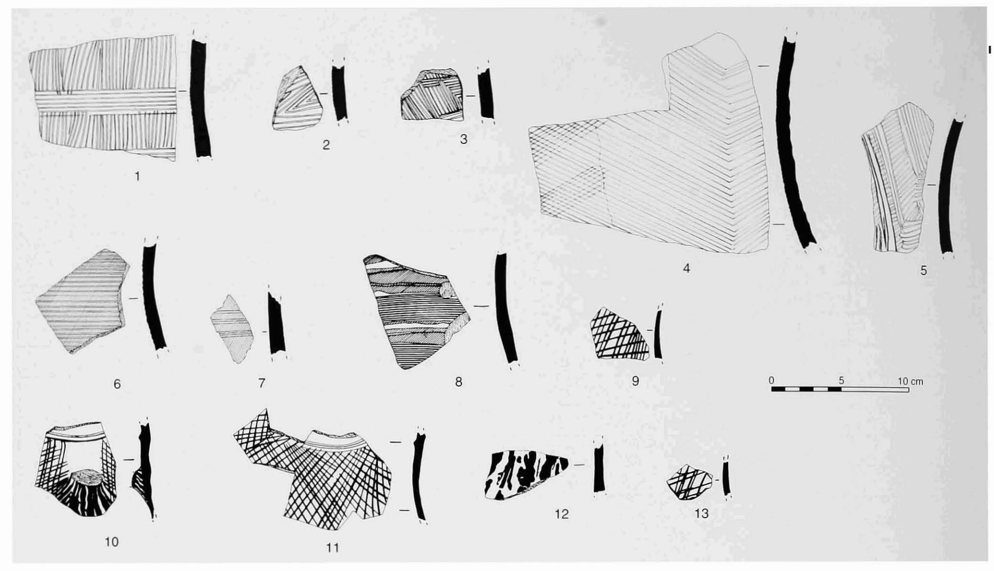


Plate 47.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	1714	Body sherd	058	Light red paste 10 R 6/8; pattern combing ext.; fabric 1.
2	2913	Body sherd	088	Light reddish brown paste 2.5 YR 6/4; pattern combing ext.; fabric 2.
3	2903	Body sherd	088	Red paste 10 R 5/8; pattern combing ext.; fabric 1.
4	1053	Body sherd	044	Weak red paste 2.5 YR 4/2; pattern combing ext.; fabric 1.
5	1055	Body sherd	044	Weak red paste 10 R 5/4; pattern combing ext.; fabric 3.
6	1075	Body sherd	044	Very pale brown paste 10 YR 8/4; combing and red slip ext.; fabric 5.
7	1064	Body sherd	044	Very pale brown paste 10 YR 8/4; incised combing and red slip ext.; fabric 5.
8	1060	Body sherd	044	Light reddish brown paste 2.5 YR 7/4; horizontal red painted bands and horizontal combing ext.; fabric 1.
9	3367	Body sherd	096	Red paste 10 R 5/8; net black painting ext.; fabric 1.
10	4218	Body sherd	121	Red paste ext. 10 R 5/8; net black paint on ext. and ridge around the neck; fabric 1.
11	4272	Body sherd	125	Red paste 10 R 5/8; ridge around the neck and black net painting ext.; fabric 1 (**photo 10**, p. 71).
12	4269	Body sherd	125	Red paste 10 R 5/8; black paint ext.; fabric 1.
13	1671	Body sherd	054	Light red paste 10 R 6/8; net burnishing ext.; fabric 1.

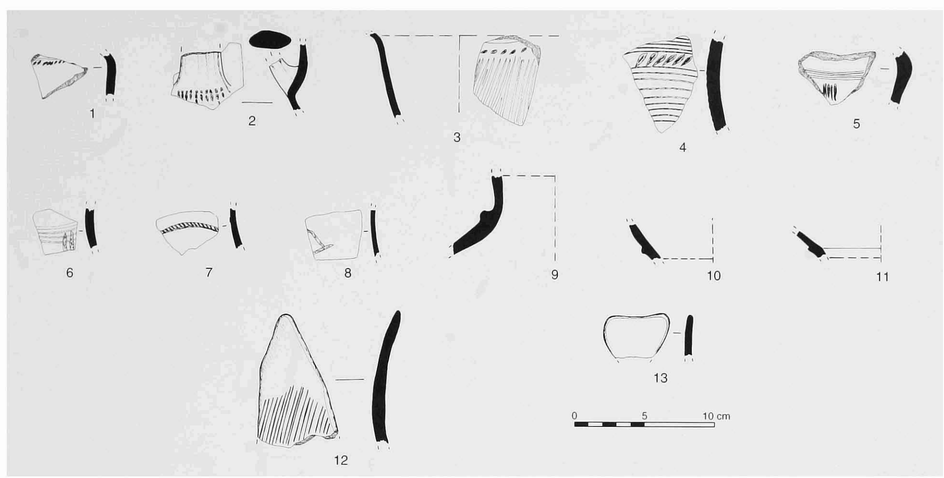


Plate 48.

STRATUM 4

Number	Reg. Number	Object	Locus N°	Description
1	3017	Body sherd	090	Light red paste 10 R 6/8; oval incisions; fabric 1.
2	2651	Body sherd	085	Weak red paste 10 R 5/3; two rows of oval incisions; fabric 1.
3	2930	Body sherd	087	Light red paste 10 R 6/8; vertical burnishing ext., line of oval incisions; fabric 1.
4	1691	Body sherd	058	Reddish grey paste 10 R 5/1; oval incisions and horizontal combing ext.; fabric 1.
5	1005	Body sherd	044	Dark grey paste 10 YR 4/1; incised lines horizontal and vertical; fabric 2.
6	1663	Body sherd	057	Light red paste 10 R 6/8 ext.; incised lines horizontal and vertical; fabric 1.
7	2750	Body sherd	085	Red paste 10 R 5/8; incised decoration on ridge; fabric 2.
8	1706	Body sherd	058	Light red paste 2.5 YR 6/8; incised decoration; fabric 1.
9	3329	Body sherd	096	Pale red paste 10 R 6/3; ridge ext. at junction from rim to body; fabric 2.
10	3007	Body sherd	090	Weak red paste 10 R 5/4; ridge ext.; fabric 1.
11	3027	Body sherd	090	Weak red paste 10 R 5/4; ridge ext.; fabric 1.
12	4065	Body sherd	117	Triangular piece; pale red paste 10 R 6/4; combing ext.; fabric 2.
13	4057	Body sherd	117	Triangular piece; red paste 10 R 5/8; fabric 2.

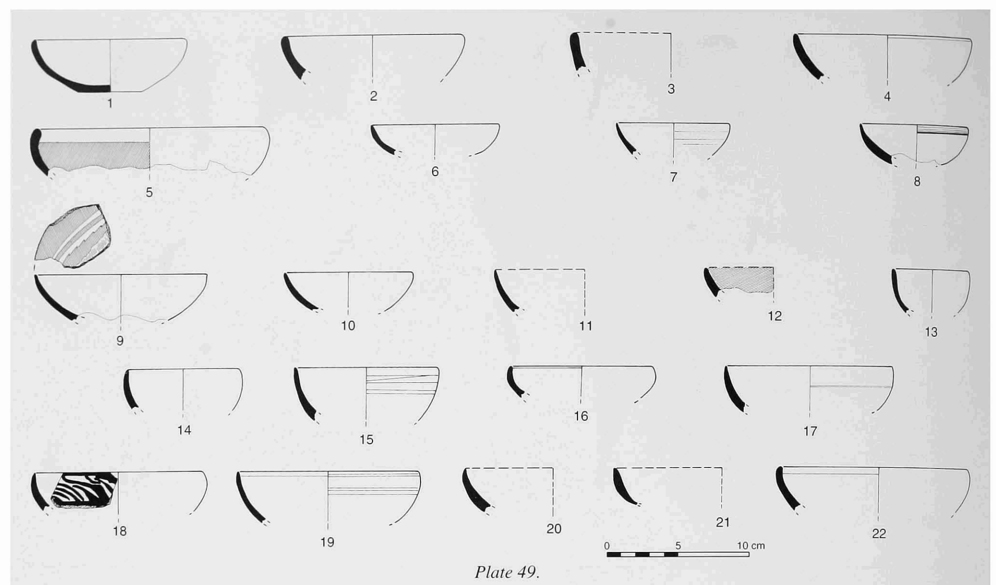


Plate 49.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	1509	Bowl	020	Light red paste 2.5 YR 6/6; fabric 2.
2	2139	Bowl	077	Light red paste 2.5 YR 7/6; fabric 2.
3	3708	Bowl	105	Pink paste 5 YR 8/3; fabric 2.
4	1945	Bowl	065	Light red paste 2.5 YR 7/6; fabric 2.
5	3734	Bowl	106	Light reddish brown paste 2.5 YR 7/4; red slip int.; fabric 2.
6	2256	Bowl	075	Weak red paste 10 R 5/4; fabric 2.
7	3488	Bowl	100	Light red paste 10 R 6/6; fabric 1.
8	2550	Bowl	080	Light red paste 2.5 YR 7/6; horizontal incised lines ext.; fabric 2.
9	2529	Bowl	080	White paste 5 YR 8/1; red slip int.; fabric 2.
10	3495	Bowl	100	Light red paste 10 R 6/6; fabric 2.
11	1957	Bowl	065	Light reddish brown paste 2.5 YR 7/4; fabric 2.
12	2586	Bowl	080	Light red paste 2.5 YR 7/6; red slip int.; fabric 2.
13	1604	Bowl	056	Light red paste 2.5 YR 6/6; fabric 2.
14	2401	Bowl	071	Light red paste 2.5 YR 6/8; fabric 2.
15	2222	Bowl	075	Reddish yellow paste 7.5 YR 7/6; fabric 5.
16	2458	Bowl	074	Light red paste 10 R 6/8; fabric 1.
17	3709	Bowl	105	Light red paste 2.5 YR 7/6; fabric 1.
18	2863	Bowl	086	Reddish grey paste 10 R 5/1; burnished int.; fabric 1 (**photo 12**, p. 72).
19	2855	Bowl	086	Light red paste 10 R 6/6; burnished int. and ext.; fabric 1.
20	3460	Bowl	092	Red paste 10 R 5/6; fabric 1.
21	3456	Bowl	092	Light reddish brown paste 2.5 YR 7/4; fabric 2.
22	3499	Bowl	101	Light reddish brown paste 2.5 YR 6/4; fabric 2.

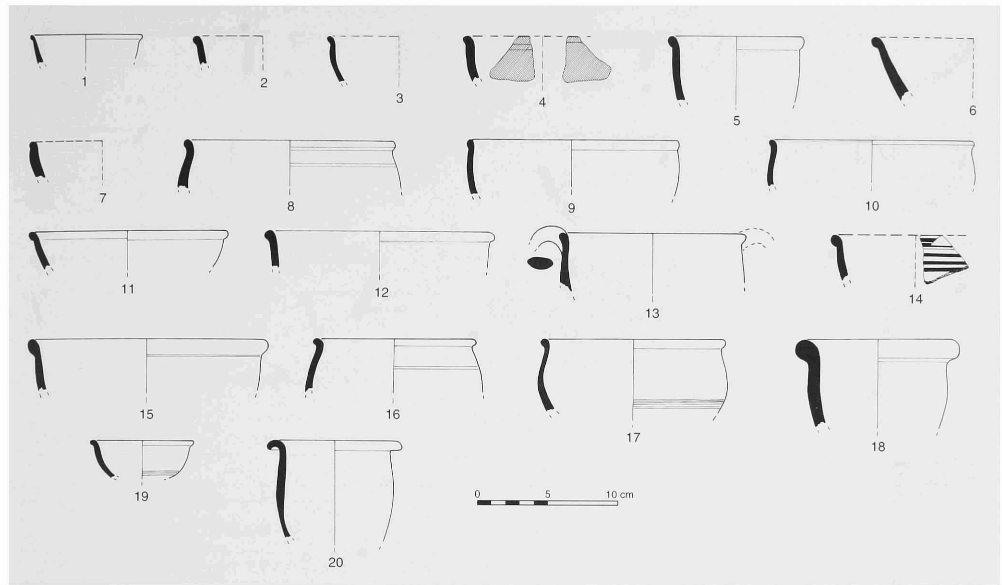


Plate 50.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	1880	Bowl	060	Light red paste 2.5 YR 7/8; fabric 2.
2	1879	Bowl	060	Light red paste 10 R 6/8; fabric 2.
3	2088	Bowl	075	Pale red paste 10 R 6/4; fabric 2.
4	1841	Bowl	060	Light reddish brown paste 2.5 YR 7/3; red slip int. and ext.; fabric 2.
5	2427	Bowl	074	Pale red paste 10 R 6/2; fabric 2.
6	3623	Bowl	095	Light red paste 10 R 6/6; fabric 2.
7	1810	Bowl	064	Light red paste 10 R 6/8; fabric 2.
8	2553	Bowl	080	Light red paste 2.5 YR 7/6; horizontal incised lines on ext.; fabric 2.
9	2281	Bowl	072	Light red paste 10 R 6/6; fabric 2.
10	1608	Bowl	056	Reddish grey paste 10 R 5/1; fabric 1.
11	2122	Bowl	077	Light red paste 10 R 6/6; fabric 2.
12	2258	Bowl	075	Weak red paste 10 R 5/4; fabric 2.
13	3474	Bowl	100	Light red paste 10 R 6/8; fabric 2.
14	3484	Bowl	100	Reddish grey paste 10 R 5/1; horizontal burnishing ext.; fabric 2.
15	2387	Bowl	071	Light reddish brown paste 2.5 YR 6/3; fabric 2.
16	3096	Bowl	091	Red paste 10 R 5/8; horizontal incised line on ext.; fabric 1.
17	3571	Bowl	113	Light red paste 2.5 YR 6/8; horizontal incised lines on ext.; fabric 2.
18	1572	Bowl	056	Dark reddish grey 10 R 4/1; fabric 3.
19	3200	Bowl	091	Light red paste 10 R 6/6; horizontal incised lines on ext.; fabric 2.
20	2376	Bowl	071	Light red paste 2.5 YR 7/6; fabric 2.

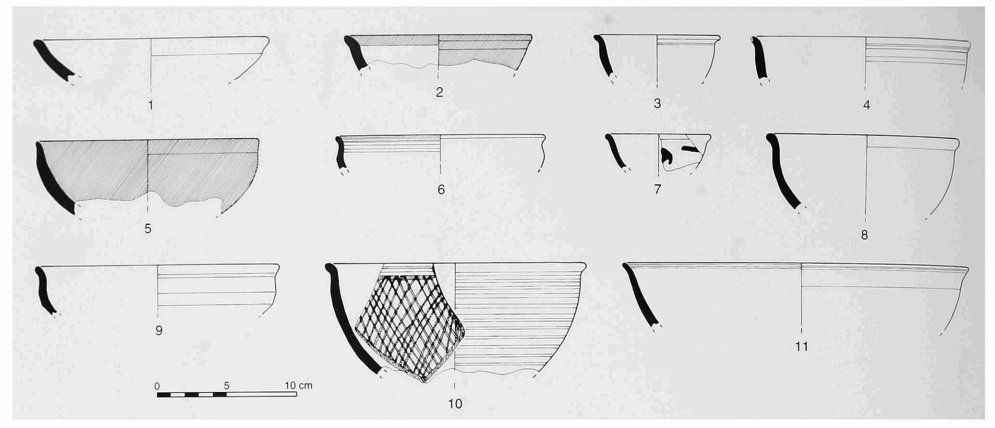


Plate 51.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	1667	Bowl	056	Light reddish brown paste 2.5 YR 7/4; burnished ext.; fabric 2.
2	3189	Bowl	091	Pink paste 5 YR 8/3; red slip int. and ext.; fabric 2.
3	3647	Bowl	102	Light red paste 2.5 YR 7/6; fabric 1.
4	2282	Bowl	072	Red paste 10 R 5/8; fabric 1.
5	3727	Bowl	106	Light red paste 2.5 YR 7/6; red slip int. and ext.; fabric 2.
6	1928	Bowl	062	Red paste 10 R 5/8; fabric 1.
7	2356	Bowl	070	Red paste 10 R 5/6; black paint ext.; fabric 1.
8	2426	Bowl	074	Light red paste 10 R 6/6; fabric 2.
9	2373	Bowl	071	Light red paste 2.5 YR 7/8; fabric 1.
10	1808	Bowl	064	Red paste 10 R 5/8; horizontal burnishing on the ext.; net burnishing on the int.; fabric 1.
11	1931	Bowl	062	Red paste 10 R 5/8; fabric 1.

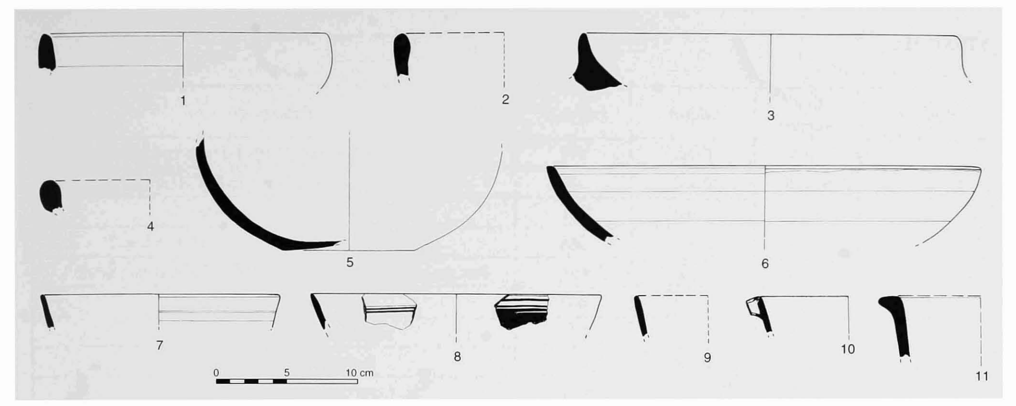


Plate 52.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	2371	Bowl	071	Light red paste 2.5 YR 7/6; fabric 2.
2	2249	Bowl	075	Red paste 10 R 5/6; fabric 1.
3	3170	Bowl	091	Pink paste 5 YR 8/6; red slip int. and ext.; fabric 5.
4	1858	Bowl	060	Light red paste 10 R 6/6; fabric 3.
5	17060	Bowl	024	Pale red paste 10 R 6/3; fabric 2.
6	1646	Bowl	056	Light red paste 2.5 YR 7/8; horizontal band of red paint on rim in poor condition; fabric 2.
7	1612	Bowl	056	Light red paste 2.5 YR 7/6; burnished ext.; fabric 1.
8	2547	Bowl	080	Light red paste 2.5 YR 7/6; black horizontal paint ext. and int.; fabric 1.
9	1878	Bowl	060	Red paste 10 R 5/8; burnished ext.; white paint int. and ext.; fabric 1.
10	15717	Bowl	025	Red paste 10 R 5/6; fabric 1.
11	3181	Bowl	091	Pink paste 5 YR 8/3; fabric 5.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	3108	Bowl	091	Red paste 10 R 5/6; fabric 1.
2	11276	Bowl	024	Light reddish brown paste 2.5 YR 7/3; fabric 2.
3	3115	Bowl	091	Red paste 10 R 5/6; fabric 2.
4	1775	Bowl	064	Light red paste 10 R 6/8; red slip int.; fabric 2.
5	1643	Bowl	056	Red paste 10 R 5/6; red slip burnished int. and ext.; fabric 1.
6	3969	Bowl	092	Red paste 10 R 5/6; fabric 2.
7	2042	Bowl	075	Light red paste 10 R 6/6; fabric 2.
8	2194	Bowl	077	Red paste 10 R 5/4; fabric 1.
9	2286	Bowl	072	Light red paste 10 R 6/8; fabric 3.
10	2561	Bowl	080	Pale red paste 10 R 6/3; fabric 1.
11	2844	Bowl	086	Light red paste 2.5 YR 7/2; fabric 2.
12	1625	Bowl	056	Light red paste 10 R 6/8; fabric 2.
13	3171	Bowl	091	Light red paste 2.5 YR 7/8; fabric 1.
14	3537	Bowl	101	Pale red paste 2.5 YR 7/2; fabric 2.
15	1551	Bowl	056	Dark reddish grey paste 10 R 4/1; fabric 3.
16	1618	Bowl	056	Red paste 10 R 5/8; fabric 1.
17	3576	Bowl	113	Light red paste 2.5 YR 6/8; net black paint on ext.; fabric 1.
18	2179	Bowl	077	Red paste 10 R 5/8; net burnishing on ext.; fabric 1.
19	2543	Bowl	080	Light red paste 10 R 6/8; horizontal combing ext.; fabric 1.
20	3312	Bowl	097	Red paste 10 R 5/8; fabric 1.
21	1881	Bowl	060	Light red paste 10 R 6/8; fabric 2.
22	1820	Bowl	064	Red paste 10 R 5/8; fabric 1.
23	3065	Bowl	091	Pale red paste 10 R 6/4; fabric 2.
24	1862	Bowl	060	Light red paste 2.5 YR 7/8; fabric 2.

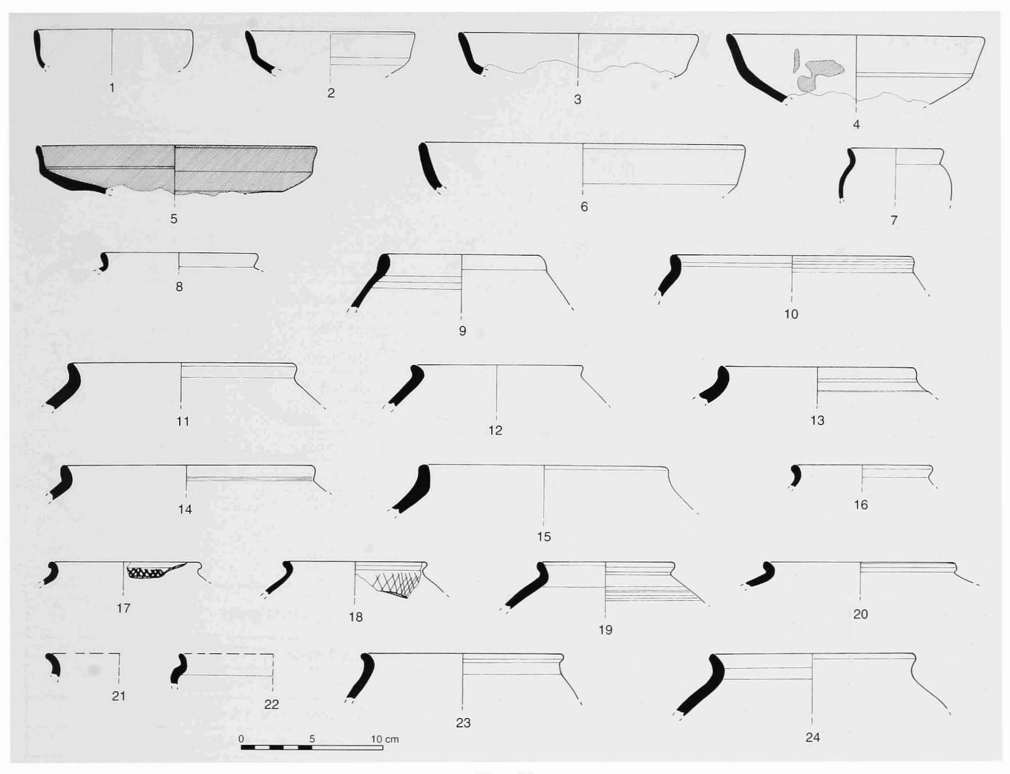


Plate 53.

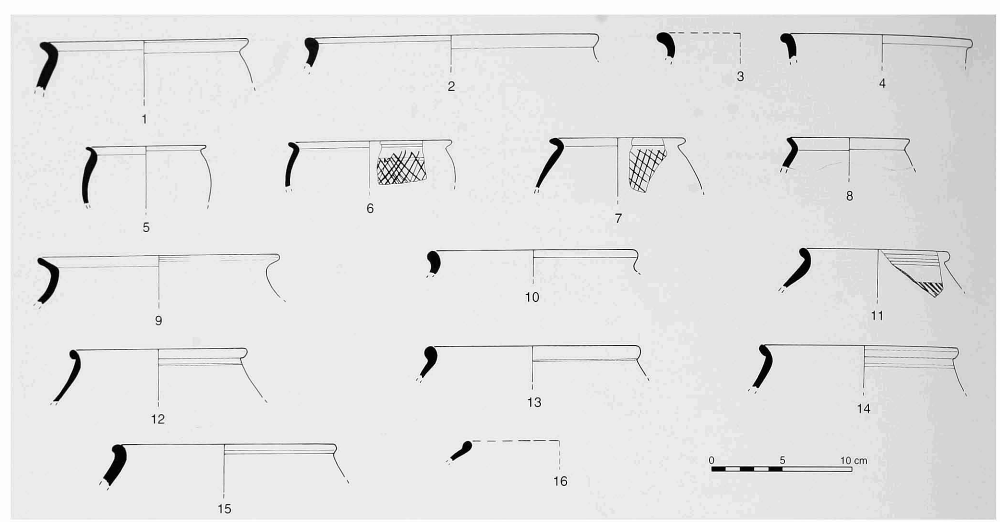


Plate 54.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	2548	Bowl	080	Light red paste 2.5 YR 7/6; fabric 2.
2	2557	Bowl	080	Red paste 10 R 5/6; fabric 2.
3	2567	Bowl	080	Red paste 10 R 5/6; fabric 1.
4	1962	Bowl	065	Light red paste 10 R 6/8; fabric 2.
5	2166	Bowl	077	Reddish grey paste 2.5 YR 7/6; fabric 2.
6	11294	Bowl	024	Light reddish brown paste 2.5 YR 7/4; black painted net pattern ext.; fabric 2.
7	2398	Bowl	071	Weak red paste 10 R 5/4; net burnishing ext.; fabric 1.
8	4027	Bowl	111	Red paste 10 R 5/6; fabric 1.
9	1521	Bowl	056	Red paste 10 R 5/8; fabric 1.
10	3127	Bowl	091	Light reddish brown paste 2.5 YR 7/4; fabric 2.
11	3956	Bowl	110	Light red paste 2.5 YR 7/6; incised lines ext.; fabric 2.
12	3731	Bowl	106	Light red paste 10 R 6/8; fabric 1.
13	2190	Bowl	077	Light red paste 10 R 6/6; fabric 2.
14	3738	Bowl	106	Light red paste 2.5 YR 7/8; fabric 1.
15	3182	Bowl	091	Light red paste 10 R 6/6; fabric 2.
16	2196	Bowl	077	Light red paste 10 R 6/6; fabric 2.

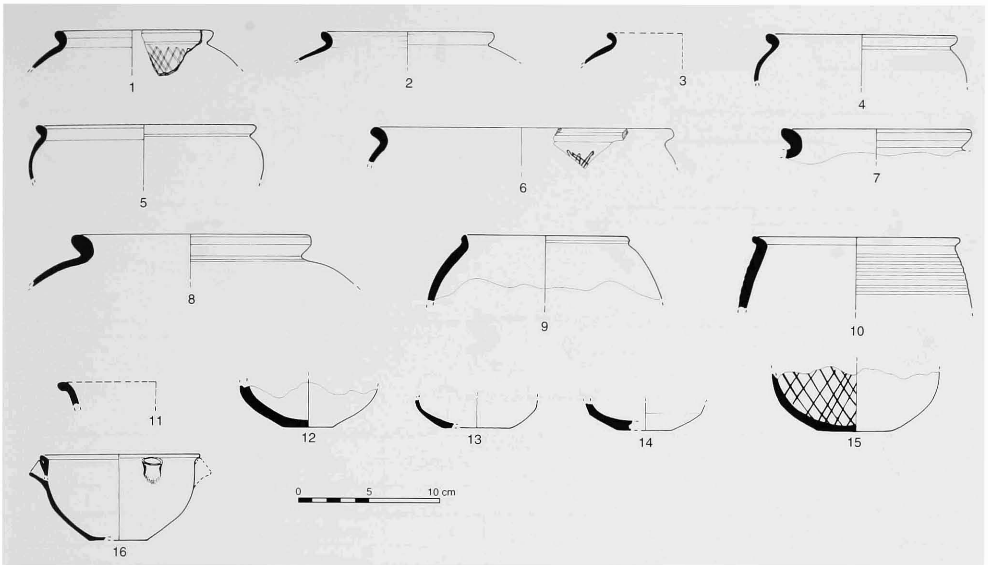


Plate 55.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	2153	Bowl	077	Red paste 10 R 5/8; net burnishing ext.; fabric 1.
2	1616	Bowl	056	Red paste 10 R 5/6; fabric 1.
3	2081	Bowl	075	Pale red paste 10 R 6/4; fabric 1.
4	2208	Bowl	075	Light red paste 2.5 YR 6/8; fabric 2.
5	2231	Bowl	075	Red paste 10 R 5/6; very light pattern combing; fabric 2.
6	608	Bowl	023	Light reddish brown paste 2.5 YR 7/3; black paint ext.; fabric 2.
7	2379	Bowl	071	Light red paste 2.5 YR 6/8; fabric 2.
8	2367	Bowl	071	Light red paste 10 R 6/8; fabric 1.
9	2530	Bowl	080	Light red paste 2.5 YR 7/8; fabric 2.
10	3146	Bowl	091	Light red paste 10 R 6/8; horizontal combing ext.; fabric 2.
11	3625	Bowl	095	Light reddish brown paste 2.5 YR 7/3; fabric 2.
12	3737	Bowl	106	Light red paste 2.5 YR 7/6; fabric 2.
13	3703	Bowl	105	Reddish grey paste 2.5 YR 5/1; fabric 2.
14	3494	Bowl	100	Reddish grey paste 2.5 YR 5/1; fabric 2.
15	3725	Bowl	106	Reddish grey paste 10 R 5/1; net burnishing int.; fabric 1.
16	17061	Spouted Bowl	060	Light reddish brown paste 2.5 YR 7/3; fabric 2 (**photo 13**, p. 72).

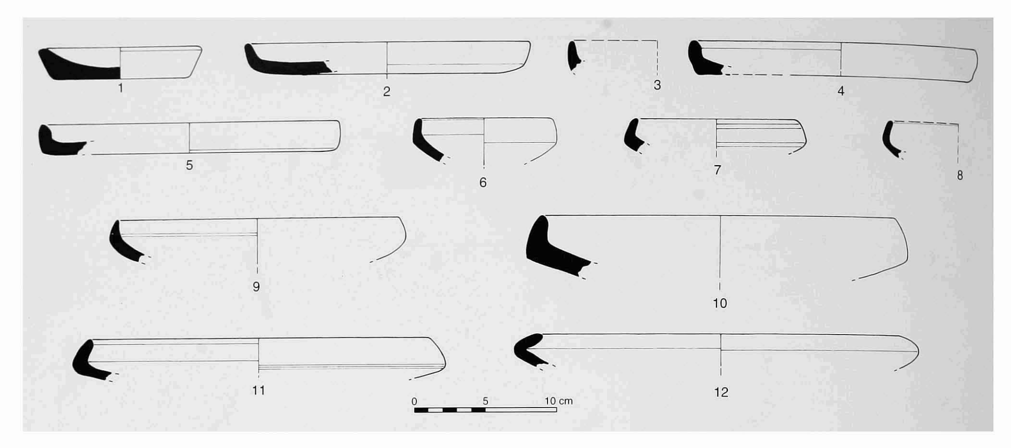


Plate 56.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	3066	Tray	091	Red paste 10 R 5/8; fabric 1.
2	3140	Tray	091	Red paste 10 R 5/8; fabric 1.
3	1619	Tray	056	Reddish grey paste 10 R 5/1; fabric 1.
4	2157	Tray	077	Light red paste 10 R 6/6; fabric 2.
5	1599	Tray	056	Red paste 10 R 5/8; burnished int. and ext.; fabric 1.
6	630	Platter/Bowl	020	Light red paste 2.5 YR 6/8; burnished int. and ext.; fabric 1.
7	3198	Platter/Bowl	091	Light red paste 2.5 YR 7/6; burnished int. and ext.; fabric 2.
8	1869	Platter/Bowl	060	Light red paste 10 R 6/8; fabric 1.
9	2216	Platter/Bowl	075	Reddish yellow paste 5 YR 7/8; fabric 1.
10	1562	Platter/Bowl	056	Light red paste 2.5 YR 6/8; fabric 1.
11	1913	Platter/Bowl	062	Light red paste 2.5 YR 7/6; burnished int. and ext.; fabric 2.
12	3466	Platter/Bowl	092	Reddish grey paste 10 R 5/1; fabric 1.

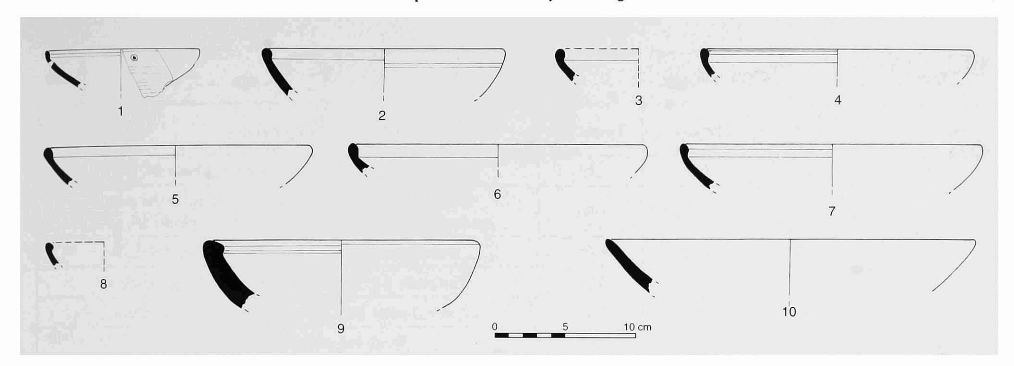


Plate 57.

STRATUM 5

Number	Reg. Number	Object	Locus Nº	Description
1	3496	Platter/Bowl	100	Reddish grey paste 10 R 6/1; incised ext.; fabric 1.
2	3498	Platter/Bowl	101	Red paste 2.5 YR 5/8; fabric 2.
3	2880	Platter/Bowl	086	Red paste 10 R 5/6; fabric 1.
4	2187	Platter/Bowl	077	Light red paste 10 R 6/6; fabric 2.
5	2289	Platter/Bowl	072	Light red paste 10 R 6/8; fabric 2.
6	3765	Platter/Bowl	106	Light red paste 10 R 6/8; fabric 2.
7	2542	Platter/Bowl	080	Light red paste 10 R 6/8; fabric 2.
8	1882	Platter/Bowl	060	Light reddish brown paste 2.5 YR 7/4; fabric 2.
9	2846	Platter/Bowl	086	Light reddish brown paste 2.5 YR 7/4; fabric 2.
10	1938	Platter/Bowl	063	Light reddish brown paste 2.5 YR 7/3; fabric 2.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	1587	Jug	113	Light red paste 2.5 YR 6/8; fabric 1 (**photo 14**, p. 72).
2	15712	Jug	056	Red paste 10 R 5/8; vertical burnishing on the neck; net burnishing on the shoulder; fabric 1 (**photo 15**, p. 72).
3	3069	Jug	091	Red paste 10 R 5/6; vertical burnishing; fabric 1.
4	2320	Jug	073	Red paste 2.5 YR 5/8; vertical burnishing; fabric 1.
5	3048	Jug	091	Light red paste 10 R 6/8; vertical burnishing; fabric 1.
6	3085	Jug	091	Weak red paste 10 R 5/4; fabric 1.
7	2388	Jug	071	Light red paste 2.5 YR 6/6; fabric 2.
8	2416	Jar / Jug	074	Red paste 10 R 5/8; fabric 1.
9	2275	Jar / Jug	072	Weak red paste 10 R 5/3; burnished ext.; fabric 1.
10	3565	Jug	113	Red paste 2.5 YR 6/8; black paint int. and ext.; fabric 1.
11	15721	Jar / Jug	021	Light red paste 2.5 YR 7/6; fabric 2.
12	3313	Jar / Jug	097	Light red paste 10 R 6/8; fabric 1.
13	1839	Jar / Jug	060	Light red paste 10 R 6/6; fabric 2.
14	3726	Neck	106	Reddish grey paste 10 R 5/1; vertical burnishing ext.; fabric 1.
15	1922	Jug	062	Dark reddish grey paste 10 R 4/1; vertical burnishing ext.; fabric 1.
16	3167	Neck	091	Light red paste 10 R 6/6; fabric 1.
17	2229	Neck	075	Light red paste 10 R 6/8; fabric 1.
18	1768	Neck	064	Red paste 10 R 5/6; fabric 1.
19	1777	Neck	064	Red paste 10 R 5/8; ridge between neck and shoulder; brown slip; vertical burnishing ext.; fabric 1.
20	17067	Jug	024	Light red paste 10 R 6/8; height : 17.4 cm; width : 9.6 cm; thick. : 0.3 cm; net vertical burnishing on neck; net diagonal burnishing on the body; fabric 1.

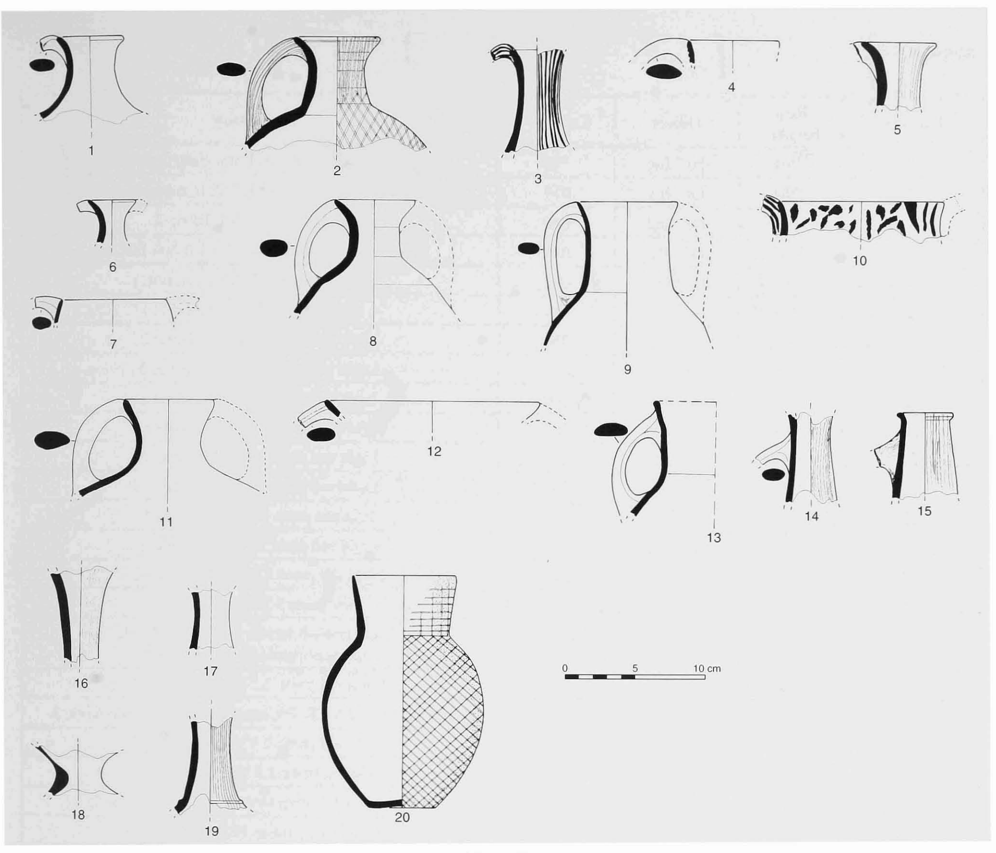


Plate 58.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	3764	Jar / Jug	106	Light red paste 10 R 6/8; burnishing ext.; fabric 1.
2	2384	Jar / Jug	071	Light reddish brown paste 2.5 YR 7/4; burnishing ext.; fabric 2.
3	1640	Jar / Jug	056	Pink paste 5 YR 7/4; fabric 2.
4	2391	Jar / Jug	071	Light reddish brown paste 2.5 YR 6/4; fabric 2.
5	3650	Jar / Jug	102	Light red paste 2.5 YR 6/8; fabric 1.
6	1821	Jar / Jug	064	Red paste 10 R 5/8; fabric 1.
7	1520	Jar / Jug	056	Light red paste 10 R 6/6; fabric 2.
8	2116	Jar / Jug	077	Light red paste 10 R 6/6; fabric 2.
9	3485	Jar / Jug	100	Light red paste 10 R 6/8; fabric 1.
10	3641	Jar / Jug	102	Light red paste 2.5 YR 7/6; fabric 1.
11	2117	Jar / Jug	077	Light red paste 10 R 6/6; fabric 1.
12	2255	Jar / Jug	075	Light red paste 10 R 6/8; fabric 1.
13	15714	Jar / Jug	056	Pale red paste 10 R 6/4; fabric 2.
14	2089	Jar / Jug	075	Light red paste 10 R 6/8; fabric 1.
15	3963	Jar / Jug	110	Light red paste 2.5 YR 7/6; fabric 2.
16	2551	Jar / Jug	080	Pink paste 5 YR 8/3; fabric 2.
17	3629	Jar / Jug	102	Light reddish brown paste 2.5 YR 7/4; diagonal combing ext.; fabric 2.
18	1634	Jar / Jug	056	Light red paste 2.5 YR 7/6; fabric 1.
19	2104	Jar / Jug	077	Light red paste 2.5 YR 7/6; smoke-blackened rim; fabric 3.
20	3521	Jar / Jug	101	Light red paste 2.5 YR 6/8; fabric 3.
21	2864	Jar / Jug	086	Pale red paste 2.5 YR 7/2; fabric 2.
22	3074	Jar / Jug	091	Light reddish brown paste 2.5 YR 7/4; fabric 2.
23	3318	Jar / Jug	097	Reddish grey paste 10 R 6/1; fabric 3.
24	1627	Jar / Jug	056	Light red paste 10 R 6/8; fabric 2.
25	2232	Jar / Jug	075	Red paste 10 R 5/6; fabric 1.
26	678	Jar / Jug	024	Reddish grey paste 10 R 5/1; diagonal and horizontal combing ext.; fabric 2.

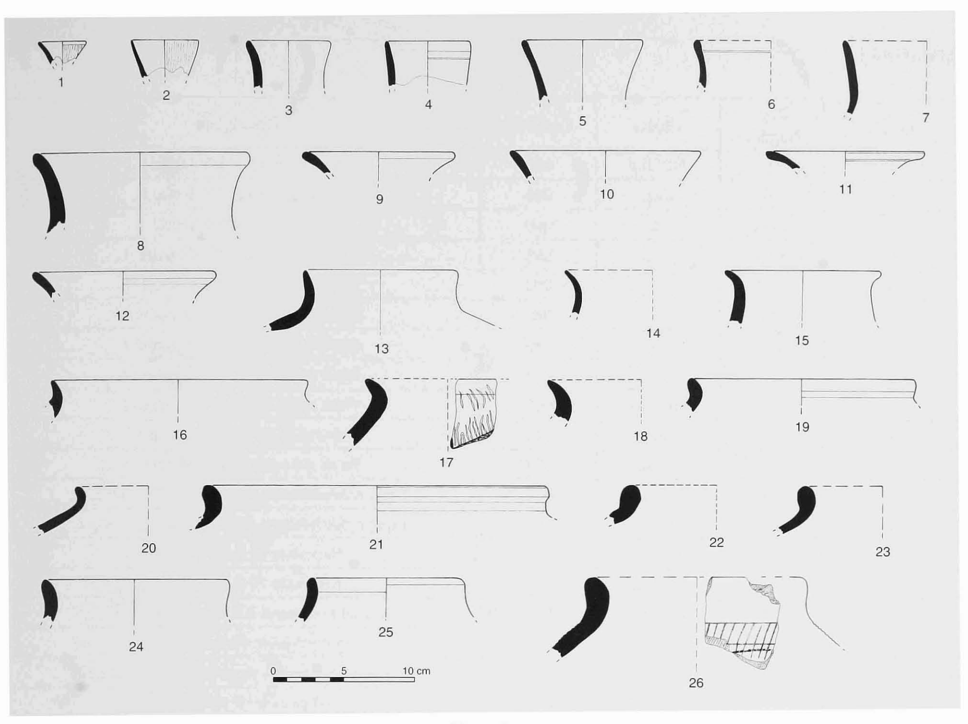


Plate 59.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	2585	Jar / Jug	080	Red paste 10 R 5/6; fabric 1.
2	2882	Jug	086	Red paste 10 R 4/8; fabric 1.
3	1847	Jug	060	Red paste 10 R 5/6; fabric 2.
4	3161	Jug	091	Light red paste 10 R 6/8; fabric 1.
5	3455	Jar / Jug	092	Pale red paste 10 R 6/4; fabric 2.
6	2498	Jug	080	Light red paste 10 R 6/6; fabric 1.
7	2565	Jug	080	Light red paste 10 R 6/6; fabric 1.
8	2262	Jar	075	Weak red paste 10 R 5/2; fabric 1.
9	2226	Jar / Jug	075	Weak red paste 10 R 5/2; fabric 1.
10	11392	Jar	021	Pale red paste 10 R 6/6; fabric 2.
11	2248	Jar / Jug	075	Weak red paste 10 R 5/3; fabric 1.
12	2240	Jar / Jug	075	Light reddish brown paste 2.5 YR7/3; fabric 2.
13	3186	Jar	091	Light reddish brown paste 2.5 YR7/3; fabric 2.
14	3464	Jar / Jug	092	Red paste 10 R 5/6; fabric 1.
15	2191	Jar / Jug	077	Red paste 10 R 5/4; fabric 1.
16	2311	Jar / Jug	073	Light red paste 2.5 YR 6/6; fabric 3.
17	2103	Jar / Jug	077	Light red paste 10 R 6/6; fabric 2.
18	3699	Jar / Jug	105	Light reddish brown paste 2.5 YR 7/4; fabric 2.
19	1870	Jar / Jug	060	Red paste 10 R 5/6; fabric 2.
20	3465	Jar / Jug	092	Pale red paste 10 R 6/2; fabric 2.
21	1865	Jug	060	Light red paste 2.5 YR 7/8; fabric 2.
22	3710	Jar	105	Reddish grey paste 2.5 YR 5/1; fabric 3.
23	3628	Jug	102	Light red paste 2.5 YR 6/8; oval incisions and vertical burnishing ext.; fabric 3.
24	3558	Jug	113	Light red paste 2.5 YR 7/6; fabric 2.
25	3748	Jar	106	Light red paste 2.5 YR 7/8; fabric 2.
26	3179	Jar	091	Pale red paste 10 R 6/4; fabric 2.
27	2421	Jar / Jug	074	Light red paste 10 R 6/6; fabric 2.
28	2375	Jar / Jug	071	Light red paste 2.5 YR 7/6; fabric 3.

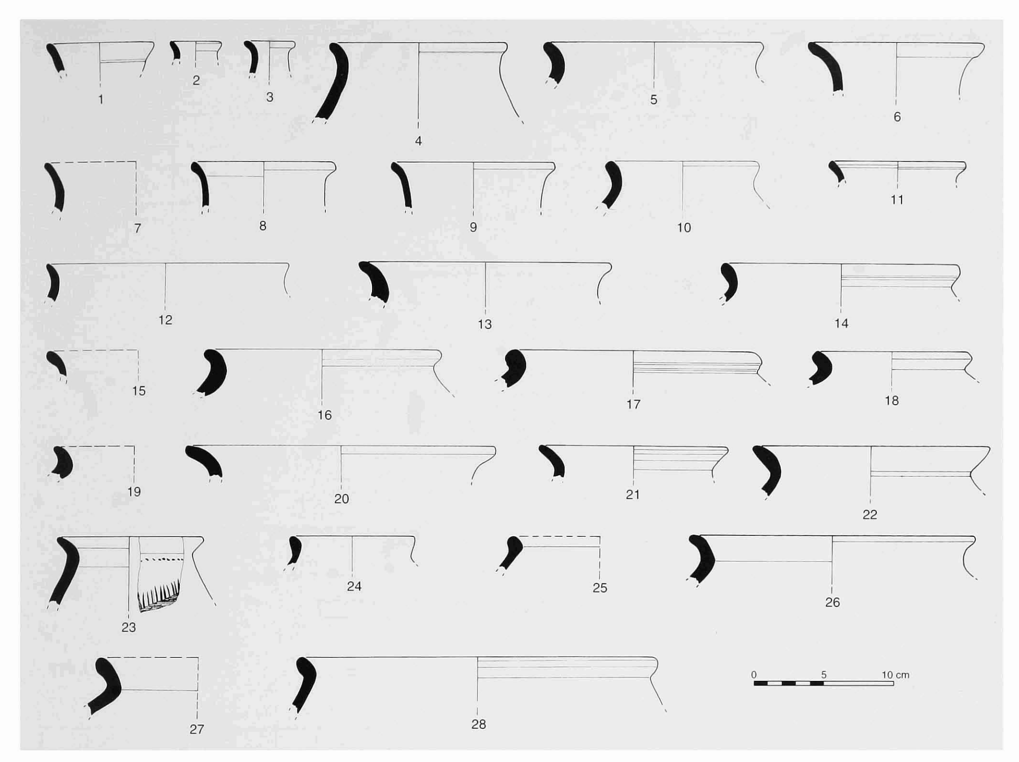

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Plate 60.

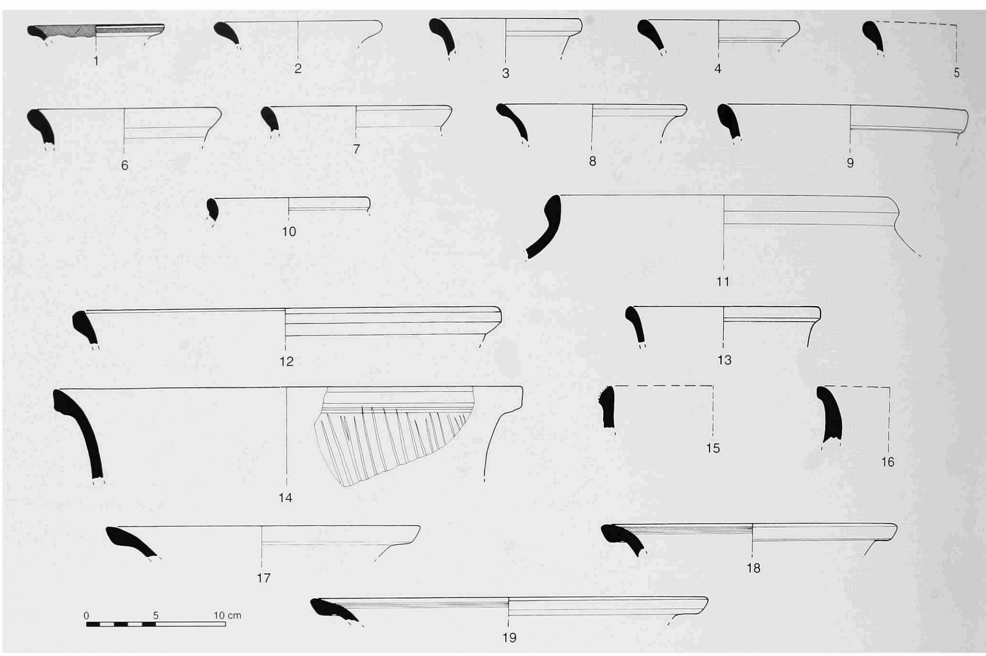


Plate 61.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	3559	Jug	113	Red paste 2.5 YR 5/8; black paint (horizontal bands) on rim int. and ext.; fabric 2.
2	15722	Jar / Jug	021	Red paste 10 R 5/6; fabric 1.
3	3112	Jar	091	Light red paste 10 R 6/8; fabric 1.
4	1804	Jug	064	Light red paste 10 R 6/6; fabric 1.
5	1960	Jar	065	Light red paste 10 R 6/8; fabric 2.
6	2435	Jug	074	Pinkish white paste 5 YR 8/2; fabric 2.
7	2452	Jar / Jug	074	Red paste 10 R 5/8; fabric 2.
8	2438	Jug	074	Light red paste 10 R 6/8; fabric 1.
9	1956	Jar	065	Light red paste 10 R 6/8; fabric 2.
10	2252	Jar / Jug	075	Light reddish brown paste 2.5 YR 7/3; fabric 2.
11	671	Jug	020	Pale red paste 10 R 6/4; fabric 2.
12	2866	Jar	086	Light red paste 2.5 YR 6/6; fabric 2.
13	1621	Jar / Jug	056	Reddish grey paste 10 R 5/1; fabric 1.
14	3051	Jar	091	Light red paste 10 R 6/8; vertical burnishing ext.; fabric 1.
15	1958	Jug	065	Light red paste 10 R 6/8; combing ext.; fabric 1.
16	1610	Jar	056	Pale red paste 10 R 6/4; fabric 2.
17	1539	Jar	056	Light red paste 10 R 6/8; fabric 2.
18	2494	Jar	080	Light red paste 10 R 6/8; fabric 1.
19	2495	Jar	080	Weak red paste 10 R 5/4; fabric 2.

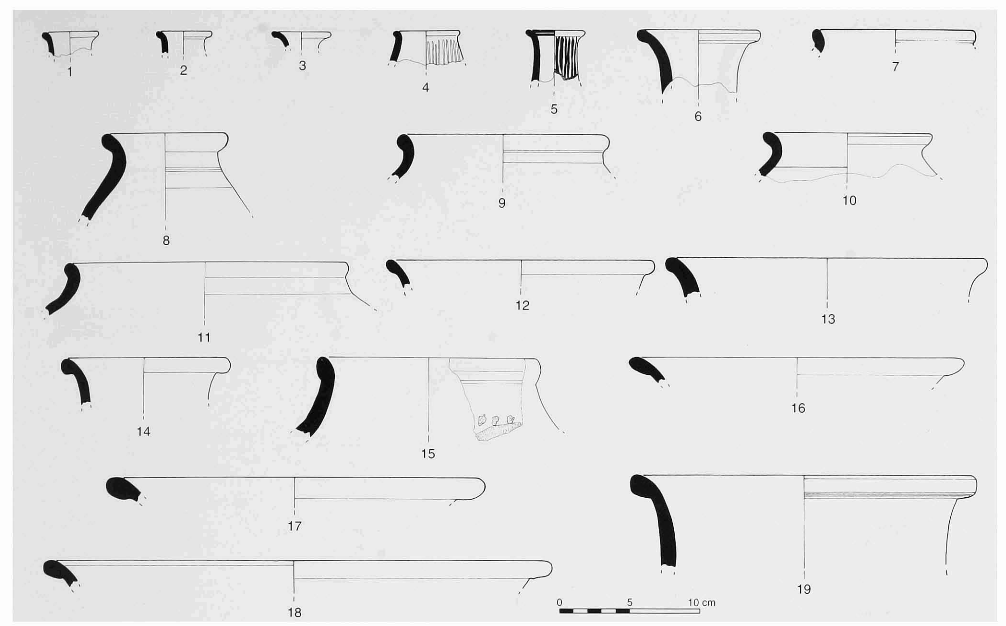


Plate 62.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	3311	Jug	097	Red paste 10 R 5/8; fabric 1.
2	1817	Jug	060	Light red paste 2.5 YR 6/6; fabric 2.
3	3712	Jug	105	Light red paste 2.5 YR 6/8; fabric 2.
4	1822	Jug	064	Red paste 10 R 5/8; brown slip; vertical burnishing; fabric 1.
5	3758	Jug	106	Weak red paste 10 R 5/4; vertical burnishing; fabric 1.
6	2167	Jug	077	Light red paste 10 R 6/6; fabric 2.
7	3197	Jar/Jug	091	Light red paste 10 R 6/8; fabric 1.
8	1915	Jar/Jug	062	Light red paste 2.5 YR 7/6; fabric 2.
9	1953	Jar/Jug	065	Light red paste 10 R 6/6; fabric 2.
10	2525	Jar / Jug	080	Light red paste 2.5 YR 7/6; fabric 2.
11	2140	Jar / Jug	077	Light reddish brown paste 2.5 YR 7/3; fabric 2.
12	3883	Jar/Jug	100	Weak red paste 10 R 5/4; fabric 1.
13	3145	Jar / Jug	091	Light reddish brown paste 2.5 YR 7/4; fabric 2.
14	3611	Jar / Jug	095	Pale red paste 10 R 6/4; fabric 2.
15	1524	Jar/Jug	056	Very pale brown paste 10 YR 8/3; incised decoration ext.; fabric 2.
16	2422	Jar/Jug	074	Light red paste 2.5 YR 7/8; fabric 2.
17	1920	Jar / Jug	062	Light red paste 2.5 YR 6/8; fabric 1.
18	2544	Jar / Jug	080	Red paste 10 R 5/6; fabric 2.
19	2417	Jar / Jug	074	Light reddish brown paste 2.5 YR 6/4; fabric 2.

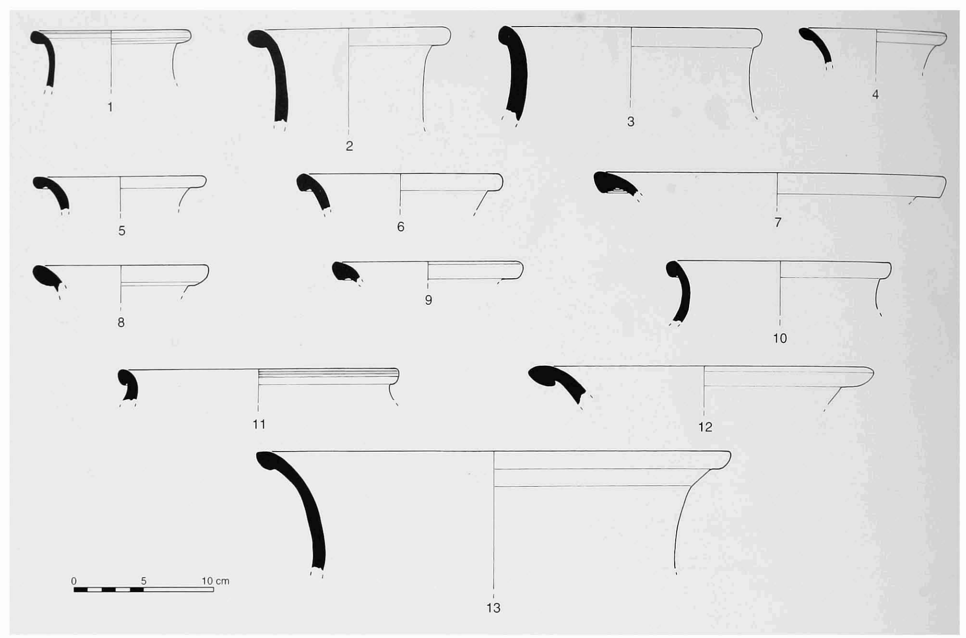


Plate 63.

STRATUM 5

Number	Reg. Number	Object	Locus Nº	Description
1	2506	Jar / Jug	080	Pale red paste 10 R 6/2; fabric 1.
2	1642	Jar / Jug	056	Pale red paste 10 R 6/4; fabric 2.
3	3720	Jar / Jug	106	Red paste 10 R 5/8; fabric 1.
4	3609	Jar / Jug	095	Light red paste 2.5 YR 7/6; fabric 2.
5	3195 3169	Jar / Jug	091	Light red paste 10 R 6/8; fabric 1.
6	3098	Jar / Jug	091	Weak red paste 10 R 5/3; fabric 2.
7	3092 3068	Jar / Jug	091	Red paste 10 R 5/6; fabric 1.
8	3104	Jar / Jug	091	Pale red paste 10 R 6/4; fabric 2.
9	2236	Jar / Jug	075	Light red paste 10 R 6/8; fabric 1.
10	1597	Jar / Jug	056	Light red paste 10 R 6/6; fabric 2.
11	3482	Jar / Jug	100	Red paste 10 R 5/6; fabric 3.
12	2176	Jar / Jug	077	Light red paste 10 R 6/6; fabric 2.
13	1836	Jar / Jug	060	Light red paste 10 R 6/8; fabric 1.

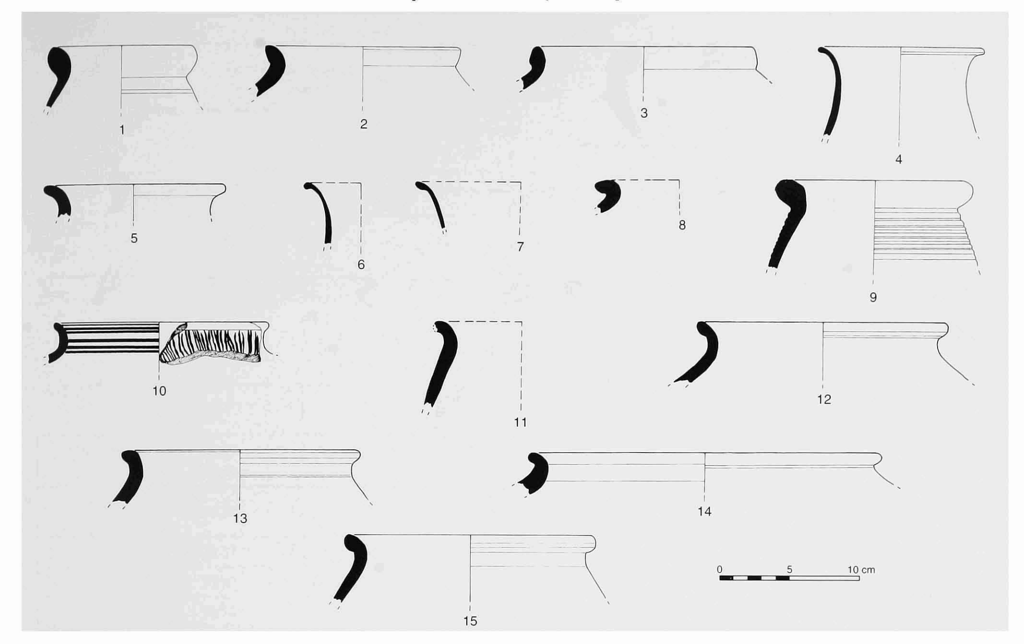


Plate 64.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	11393	Jar / Jug	022	Light red paste 2.5 YR 7/8; fabric 2.
2	679	Jar / Jug	024	Pale red paste 10 R 6/4; fabric 2.
3	3056	Jar / Jug	091	Red paste 10 R 5/6; fabric 2.
4	1549	Jar / Jug	056	Light red paste 10 R 6/8; fabric 1.
5	2868	Jar / Jug	086	Light red paste 2.5 YR 7/8; fabric 2.
6	3328	Jar / Jug	097	Reddish grey paste 10 R 6/1; fabric 1.
7	2463	Jar / Jug	074	Red paste 10 R 4/6; fabric 1.
8	1815	Jar / Jug	064	Weak red paste 10 R 5/4; fabric 3.
9	11394	Jar / Jug	022	Red paste 10 R 4/5; horizontal combing ext.; fabric 1.
10	2207	Jar / Jug	075	Red paste 10 R 5/6; black paint horizontal int. and vertical ext.; fabric 1.
11	3730	Jar / Jug	106	Pale red paste 10 R 6/4; fabric 2.
12	2405	Jar / Jug	074	Pink paste 5 YR 8/4; fabric 2.
13	2528	Jar / Jug	080	Light red paste 2.5 YR 7/8; fabric 2.
14	3556	Jar / Jug	113	Reddish brown paste 2.5 YR 5/4; fabric 3.
15	2425	Jar / Jug	074	Light red paste 2.5 YR 7/6; smoke-blackened rim; fabric 2.

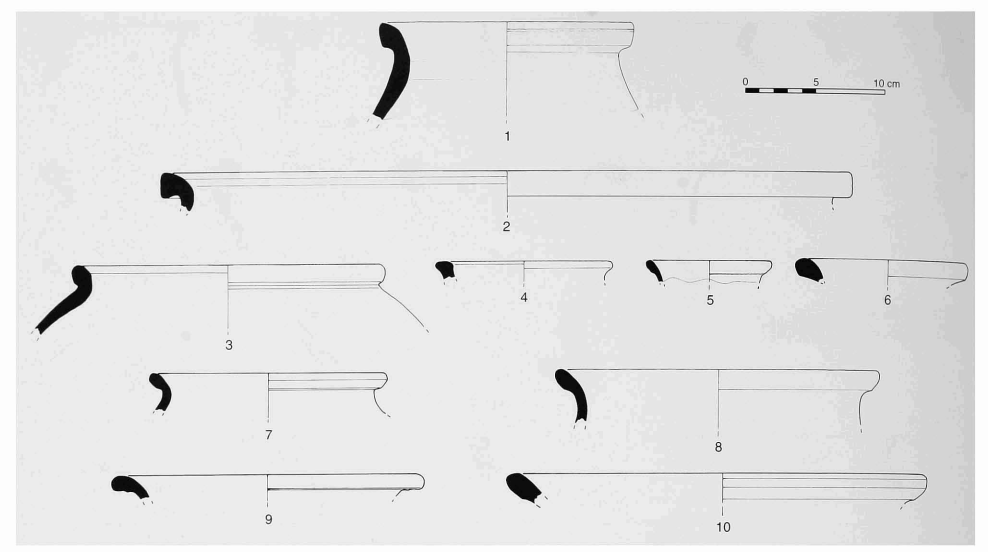


Plate 65.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	11395	Jar / Jug	021	Very pale brown paste 10 YR 8/3; fabric 2.
2	1598	Jar / Jug	056	Weak red paste 10 R 5/3; fabric 1.
3	11396	Jar / Jug	020	Light reddish brown paste 2.5 YR 6/4; fabric 2.
4	1566	Jar / Jug	056	Pale red paste 10 R 6/2; fabric 2.
5	2381	Jar / Jug	071	Light red paste 2.5 YR 6/8; fabric 1.
6	2217	Jar / Jug	075	Red paste 10 R 5/8; fabric 1.
7	3468	Jar / Jug	092	Light red paste 10 R 6/8; fabric 1.
8	2039	Jar / Jug	075	Light red paste 10 R 6/8; fabric 1.
9	2146	Jar / Jug	077	Red paste 10 R 5/8; fabric 1.
10	2486	Jar / Jug	080	Red paste 10 R 5/8; fabric 1.

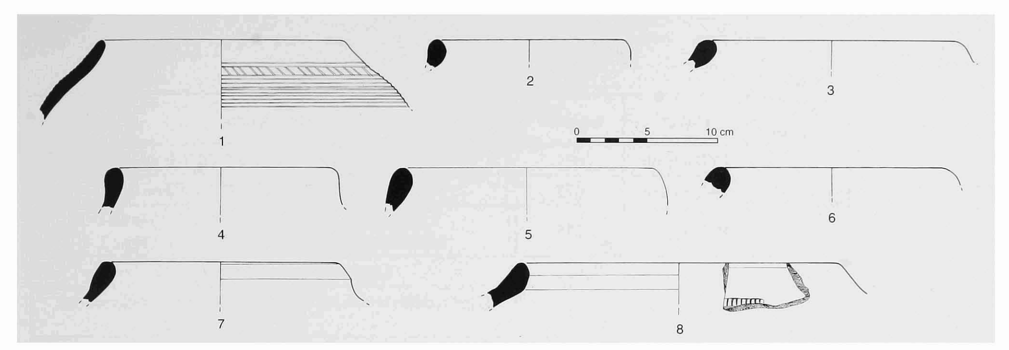


Plate 66.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	1838	Hole-mouth	060	Reddish grey paste 2.5 YR 5/1; diagonal incisions and horizontal combing ext.; fabric 3.
2	2237	Hole-mouth	075	Dark grey paste 5 YR 4/1; fabric 1.
3	2210	Hole-mouth	075	Red paste 10 R 5/8; fabric 1.
4	3054	Hole-mouth	091	Light red paste 10 R 6/6; fabric 3.
5	2308	Hole-mouth	073	Light red paste 2.5 YR 6/8; smoke-blackened rim; fabric 3.
6	2546	Hole-mouth	080	Pale red paste 2.5 YR 7/2; fabric 2.
7	3638	Hole-mouth	102	Light red paste 2.5 YR 6/8; fabric 3.
8	2312	Hole-mouth	073	Light red paste 10 R 6/8; vertical incisions ext.; fabric 2.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	2370	Hole-mouth	071	Light reddish brown paste 2.5 YR 7/4; fabric 2.
2	2313	Hole-mouth	073	Reddish grey paste 2.5 YR 6/1; fabric 2.
3	2051	Hole-mouth	075	Light reddish brown paste 2.5 YR 7/4; smoke-blackened rim; horizontal combing ext.; fabric 3.
4	3446	Hole-mouth	092	Light red paste 10 R 6/6; fabric 2.
5	1603	Hole-mouth	056	Light reddish brown paste 2.5 YR 7/3; smoke-blackened rim; fabric 2.
6	3541	Hole-mouth	101	Weak red paste 10 R 4/4; fabric 2.
7	2306	Hole-mouth	073	Light red paste 10 R 6/6; fabric 2.
8	3467	Hole-mouth	092	Red paste 10 R 5/6; fabric 2.
9	2182	Hole-mouth	077	Pale red paste 2.5 YR 7/2; fabric 2.
10	2068	Hole-mouth	075	Pale red paste 10 R 6/4; horizontal combing ext.; fabric 3.
11	3905	Hole-mouth	101	Light reddish brown paste 2.5 YR 7/3; smoke-blackened rim; fabric 3.
12	1788	Hole-mouth	064	Pinkish grey paste 5 YR 7/2; fabric 2.
13	3447	Hole-mouth	092	Light reddish brown paste 2.5 YR 7/4; fabric 3.
14	1872	Hole-mouth	060	Red paste 10 R 5/8; fabric 3.
15	3743 3747	Hole-mouth	106	Red paste 10 R 5/8; smoke-blackened rim; fabric 3.
16	3060	Hole-mouth	091	Red paste 10 R 5/6; fabric 2.
17	3088	Hole-mouth	091	Pale red paste 10 R 6/3; fabric 3.
18	1852	Hole-mouth	060	Red paste 10 R 5/6; fabric 2.
19	2043	Hole-mouth	075	Light red paste 10 R 6/6; fabric 3.

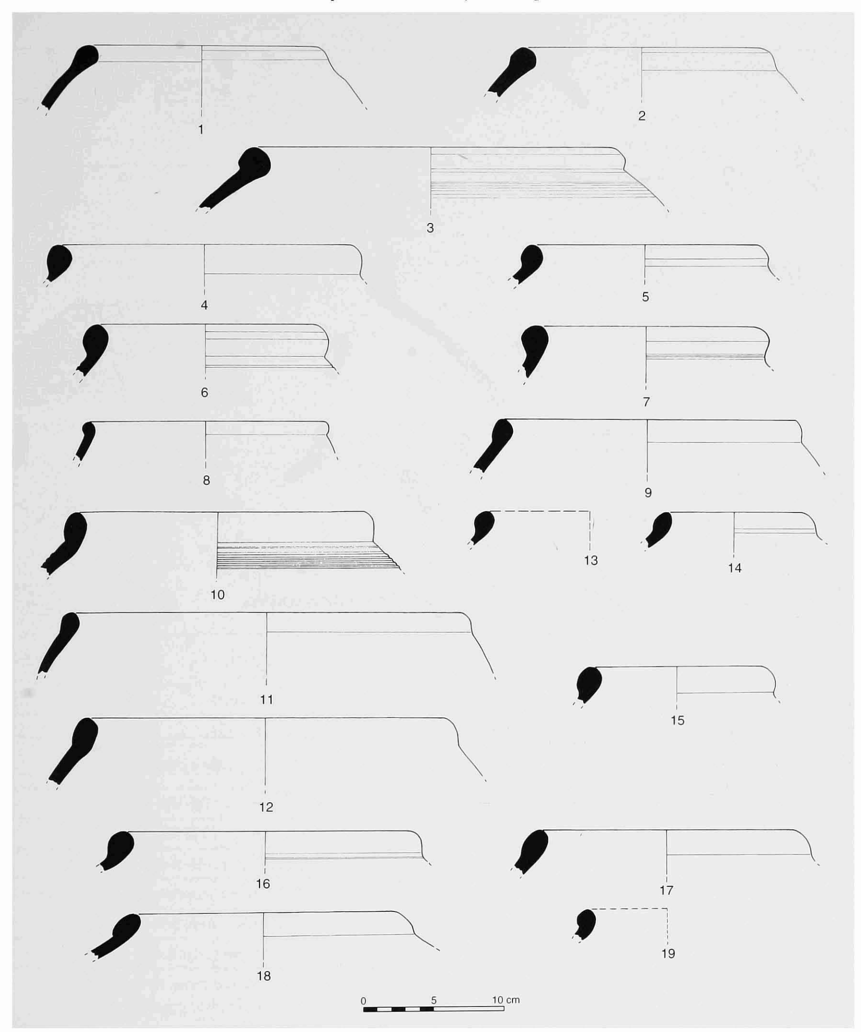


Plate 67.

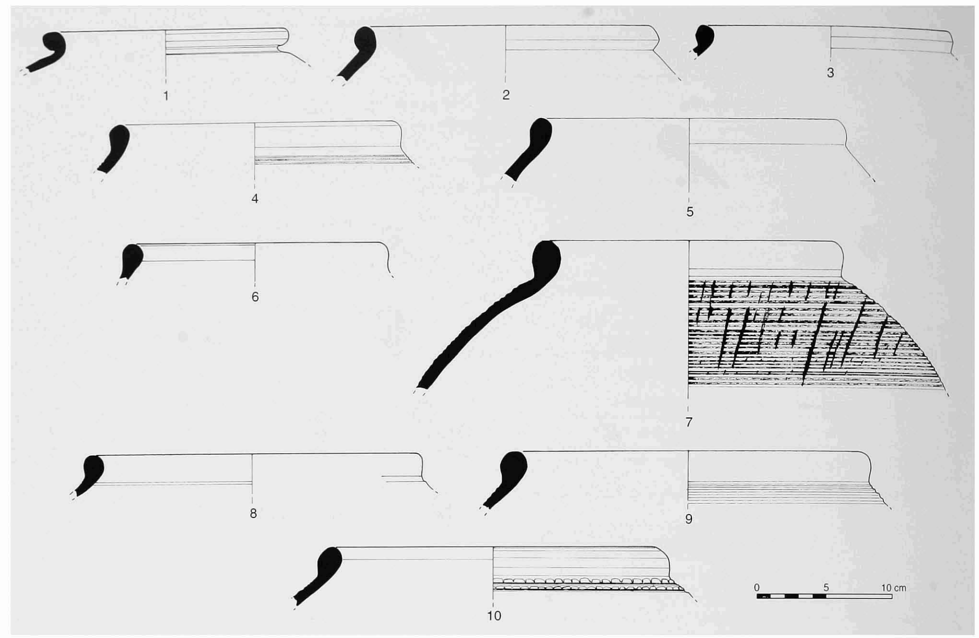


Plate 68.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	1751	Hole-mouth	064	Light red paste 2.5 YR 6/8; fabric 2.
2	2451	Hole-mouth	074	Red paste 10 R 5/6; fabric 3.
3	3760	Hole-mouth	106	Pale red paste 10 R 6/4; fabric 3.
4	609	Hole-mouth	023	Red paste 10 R 5/6; horizontal combing ext.; fabric 2.
5	15705	Hole-mouth	025	Red paste 10 R 5/8; fabric 2.
6	3612	Hole-mouth	095	Light red paste 10 R 6/6; fabric 2.
7	1510	Hole-mouth	020	Weak red paste 10 R 4/4; horizontal and diagonal combing ext.; fabric 2.
8	2305	Hole-mouth	072	Light red paste 10 R 6/6; fabric 3.
9	3723	Hole-mouth	106	Red paste 10 R 5/8; horizontal combing ext.; smoke-blackened rim; fabric 2.
10	3540	Hole-mouth	101	Light red paste 2.5 YR 6/8; horizontal combing ext.; fabric 3.

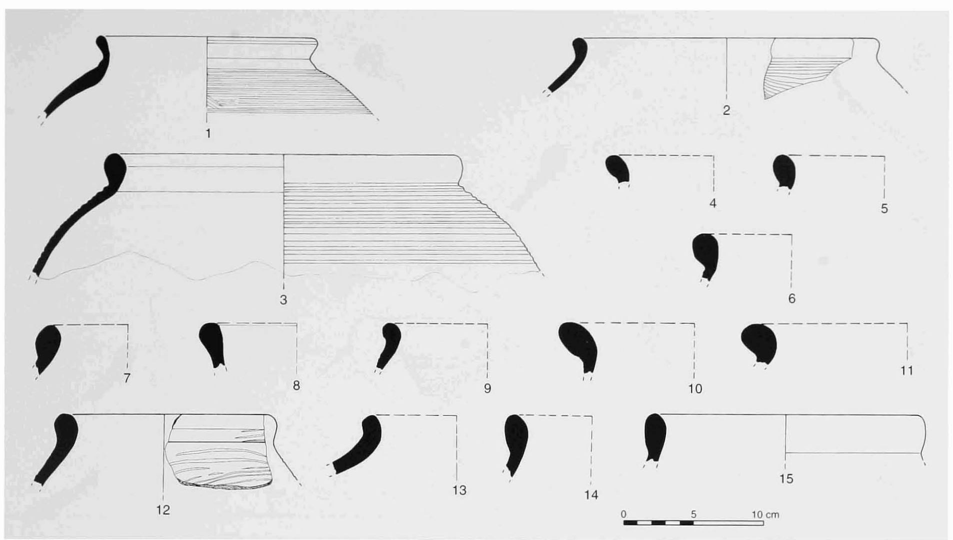


Plate 69.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	3724	Hole-mouth	106	Light red paste 10 R 6/8; light horizontal combing ext.; fabric 1.
2	2424	Hole-mouth	074	Light red paste 10 R 6/6; horizontal combing ext.; fabric 1.
3	11282	Hole-mouth	022	Red paste 10 R 5/6; horizontal combing ext.; fabric 3.
4	3448	Hole-mouth	092	Pale red paste 2.5 YR 7/2; fabric 3.
5	1850	Hole-mouth	060	Light reddish brown paste 2.5 YR 7/3; fabric 2.
6	2380	Hole-mouth	071	Light reddish brown paste 2.5 YR 7/4; fabric 2.
7	3533	Hole-mouth	101	Reddish grey paste 2.5 YR 5/1; fabric 3.
8	1672	Hole-mouth	056	Dark reddish grey paste 10 R 4/1; fabric 2.
9	3058	Hole-mouth	091	Light red paste 10 R 6/6; light combing ext.; fabric 2.
10	2137	Hole-mouth	077	Reddish grey paste 10 R 6/1; fabric 2.
11	1911	Hole-mouth	062	Dark reddish grey paste 10 R 4/1; fabric 2.
12	1951	Hole-mouth	065	Light red paste 10 R 6/6; combing ext.; fabric 3.
13	3307	Hole-mouth	097	Light red paste 10 R 6/1; smoke-blackened rim; fabric 2.
14	2372	Hole-mouth	071	Light red paste 2.5 YR 7/6; fabric 3.
15	2471	Hole-mouth	079	Red paste 10 R 5/6; fabric 2.

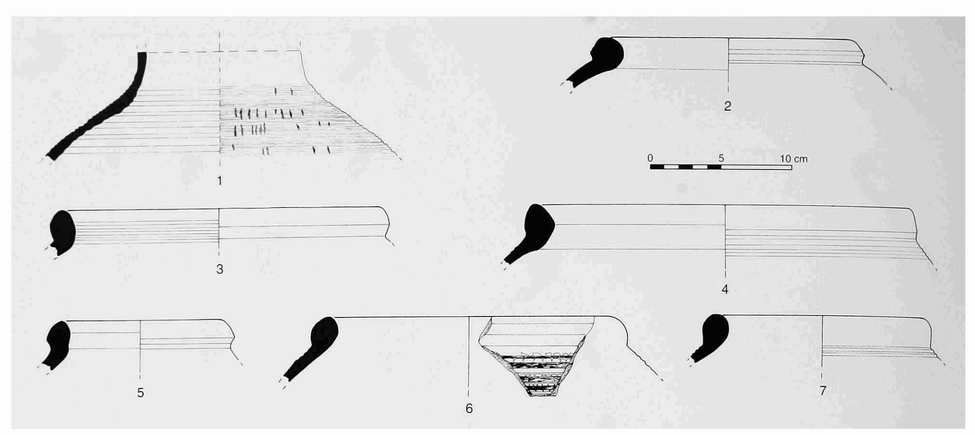


Plate 70.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	15706	Hole-mouth	025	Light reddish brown paste 5 YR 6/4; horizontal combing ext.; fabric 2.
2	2214	Hole-mouth	075	Grey paste 7.5 YR 6/1; fabric 1.
3	3752	Hole-mouth	106	Pale red paste 10 R 6/2; fabric 2.
4	3319	Hole-mouth	097	Reddish grey paste 10 R 6/1; horizontal combing ext.; fabric 2.
5	2377	Hole-mouth	071	Pale red paste 2.5 YR 7/2; fabric 2.
6	3721	Hole-mouth	106	Red paste 10 R 5/8; horizontal combing ext.; smoke-blackened rim; fabric 2.
7	3733	Hole-mouth	106	Red paste 10 R 5/8; horizontal combing ext.; smoke-blackened rim; fabric 3.

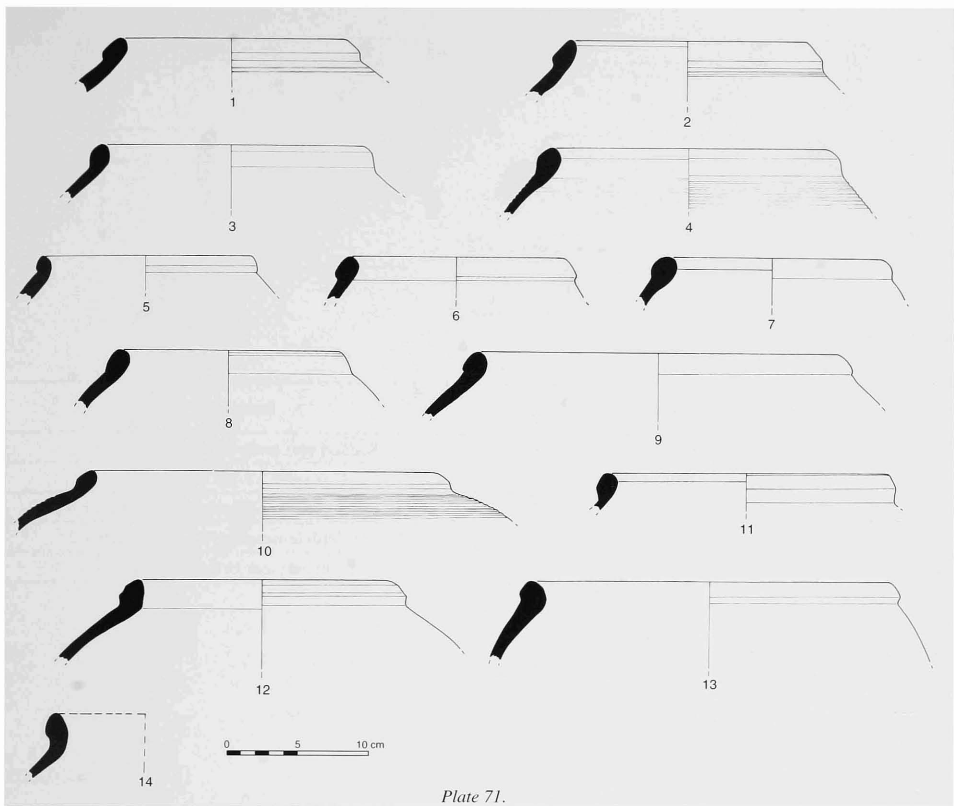


Plate 71.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	1871 1861	Hole-mouth	060	Dark reddish grey paste 2.5 YR 4/1; fabric 3.
2	1849	Hole-mouth	060	Red paste 10 R 5/6; horizontal combing ext.; fabric 2.
3	1555	Hole-mouth	056	Red paste 10 R 5/6; horizontal combing ext.; fabric 2.
4	1556	Hole-mouth	056	Red paste 10 R 5/6; horizontal combing ext.; fabric 2.
5	3700	Hole-mouth	105	Light red paste 10 R 6/6; smoke-blackened rim; fabric 2.
6	2233	Hole-mouth	075	Grey paste 7.5 YR 6/1; fabric 2.
7	1845	Hole-mouth	060	Light reddish brown paste 2.5 YR 7/3; fabric 3.
8	2218	Hole-mouth	075	Red paste 2.5 YR 7/3; fabric 1.
9	1796	Hole-mouth	064	Light red paste 10 R 6/6; smoke-blackened rim; fabric 3.
10	1844 1843	Hole-mouth	060	Weak red paste 10 R 5/4; horizontal combing ext.; fabric 2.
11	2397	Hole-mouth	071	Light red paste 2.5 YR 6/6; fabric 3.
12	1754	Hole-mouth	064	Pinkish grey paste 5 YR 7/2; fabric 2.
13	2091	Hole-mouth	075	Light reddish brown paste 2.5 YR 7/4; fabric 3.
14	3742	Hole-mouth	106	Weak red paste 10 R 5/4; smoke-blackened rim; fabric 3.

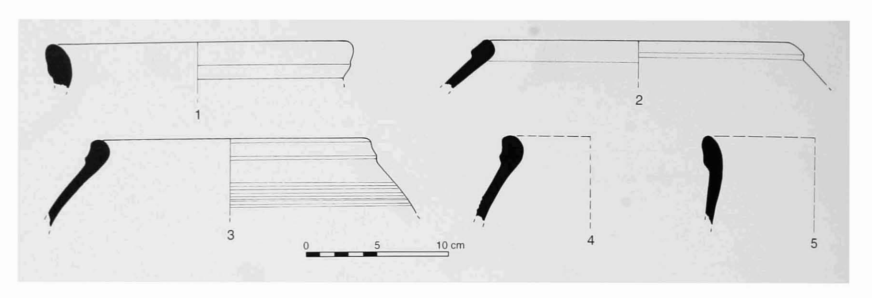


Plate 72.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	3701	Hole-mouth	105	Reddish grey paste 2.5 YR 5/1; fabric 3.
2	2234	Hole-mouth	075	Pink paste 7.5 YR 7/3; fabric 2.
3	2220	Hole-mouth	075	Pink paste 7.5 YR 7/3; horizontal combing ext.; fabric 2.
4	2040	Hole-mouth	075	Light reddish brown paste 2.5 YR 7/4; fabric 2.
5	3050	Hole-mouth	091	Light red paste 10 R 6/6; fabric 3.

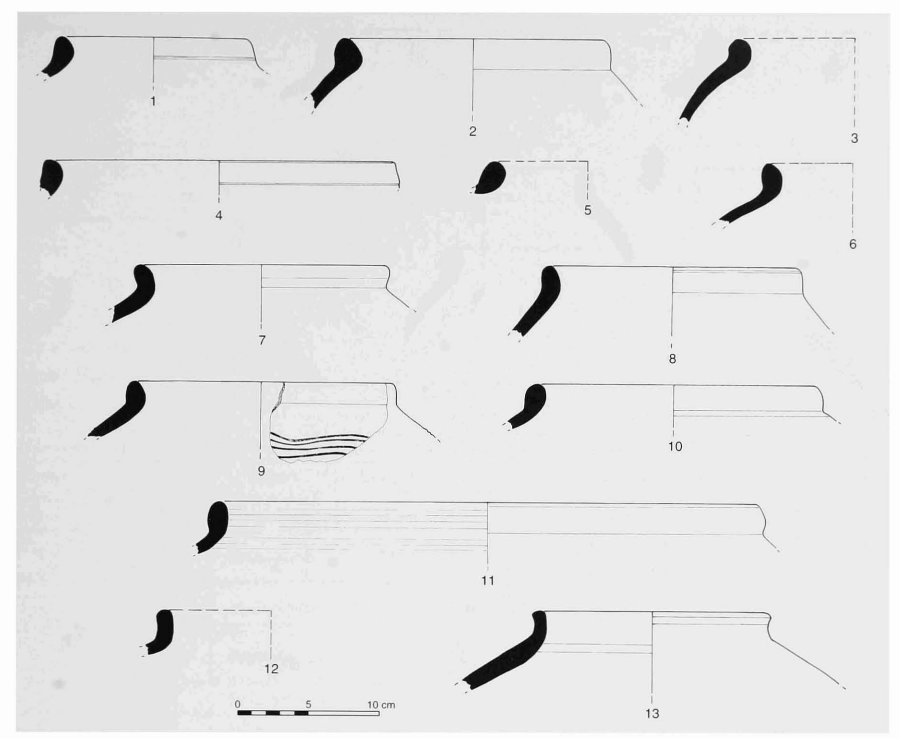


Plate 73.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	1856	Hole-mouth	060	Red paste 10 R 5/8; smoke-blackened rim; fabric 3.
2	2394	Hole-mouth	071	Pale red paste 2.5 YR 7/2; fabric 2.
3	2057	Hole-mouth	075	Light reddish brown paste 2.5 YR 7/4; fabric 3.
4	3059	Hole-mouth	091	Light reddish brown paste 2.5 YR 7/3; fabric 2.
5	3614	Hole-mouth	095	Light red paste 10 R 6/8; fabric 2.
6	3314	Hole-mouth	097	Reddish grey paste 10 R 6/1; smoke-blackened rim; light combing ext.; fabric 3.
7	3526	Hole-mouth	101	Reddish grey paste 2.5 YR 5/1; fabric 2.
8	3520	Hole-mouth	101	Red paste 2.5 YR 5/8; fabric 3.
9	3518	Hole-mouth	101	Light reddish brown paste 2.5 YR 7/3; combing ext.; fabric 3.
10	2284	Hole-mouth	072	Light red paste 10 R 6/6; smoke-blackened rim; fabric 2.
11	2170	Hole-mouth	077	Light red paste 2.5 YR 6/8; fabric 2.
12	3309	Hole-mouth	097	Light red paste 10 R 6/1; smoke-blackened rim; fabric 2.
13	2408	Hole-mouth	074	Light red paste 10 R 6/8; smoke-blackened rim; fabric 1.

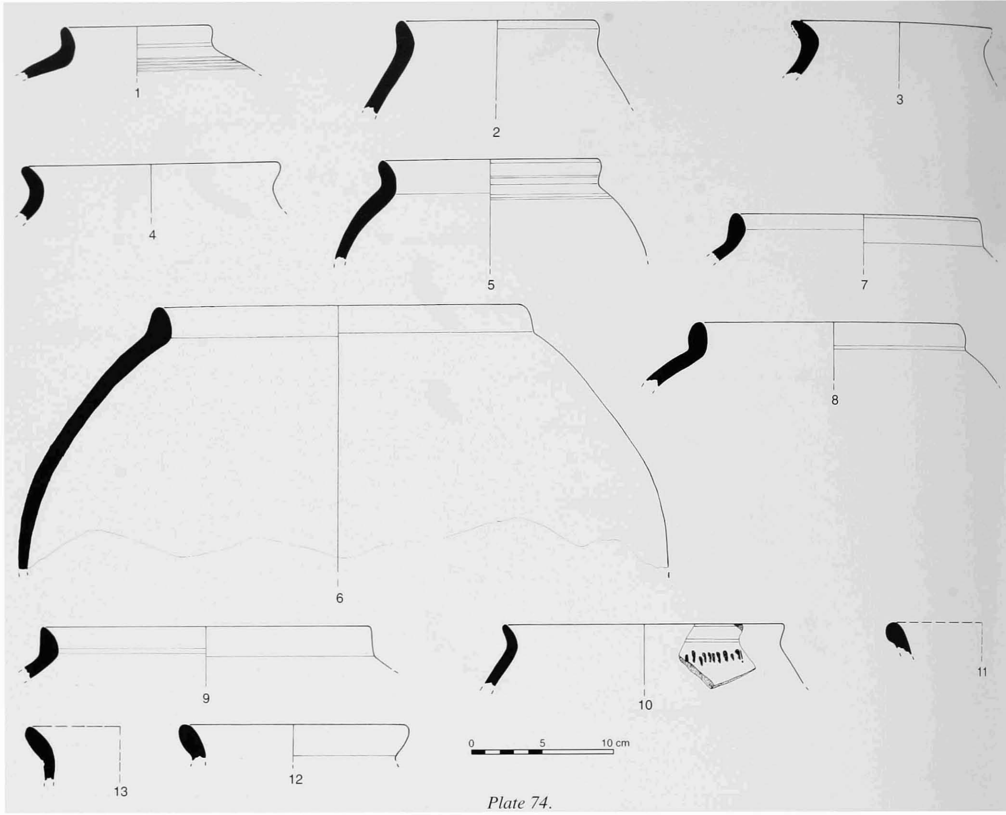


Plate 74.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	3550	Hole-mouth	101	Light reddish brown paste 2.5 YR 7/4; horizontal combing ext.; fabric 2.
2	3546	Hole-mouth	101	Light red paste 2.5 YR 6/8; fabric 3.
3	3142	Hole-mouth	091	Pale red paste 10 R 6/4; fabric 2.
4	1784	Hole-mouth	064	Light red paste 10 R 6/6; smoke-blackened rim; fabric 2.
5	3563	Hole-mouth	113	Light reddish brown paste 2.5 YR 6/3; smoke-blackened rim; horizontal combing ext.; fabric 2.
6	1525	Hole-mouth	028	Light reddish brown paste 2.5 YR 7/4; fabric 2.
7	3308	Hole-mouth	097	Reddish grey paste 10 R 6/1; fabric 2.
8	1600	Hole-mouth	056	Light reddish brown paste 5 YR 6/4; fabric 2.
9	2433	Hole-mouth	074	Pink paste 5 YR 8/3; fabric 2.
10	3717	Hole-mouth	106	Light red paste 10 R 6/8; vertical incisions on ext.; fabric 2.
11	3449	Hole-mouth	092	Pale red paste 10 R 6/4; fabric 2.
12	2420	Hole-mouth	074	Light red paste 2.5 YR 7/8; fabric 1.
13	1544	Hole-mouth	056	Reddish grey paste 10 R 5/1; fabric 3.

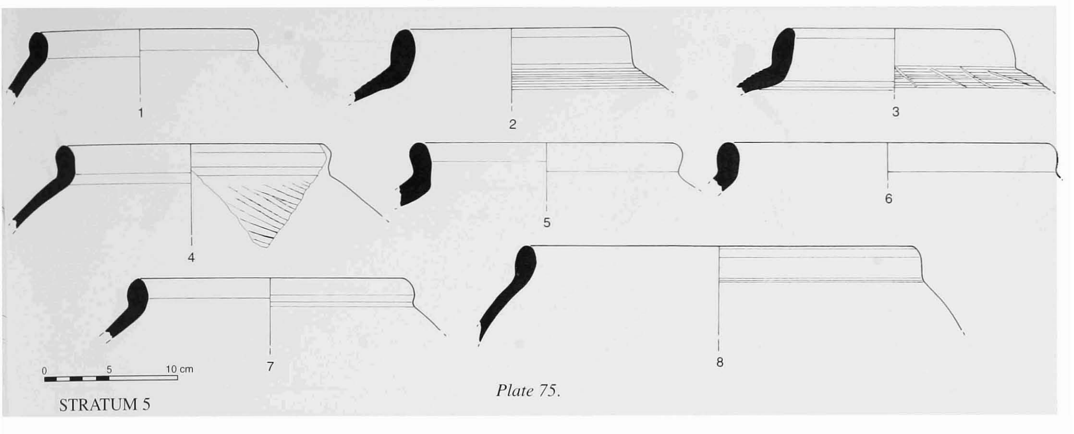


Plate 75.

Number	Reg. Number	Object	Locus N°	Description
1	1779	Hole-mouth	064	Pale red paste 2.5 YR 7/2; fabric 2.
2	1774	Hole-mouth	064	Reddish grey paste 2.5 YR 5/1; smoke-blackened rim; horizontal combing ext.; fabric 3.
3	3615 3621	Hole-mouth	095	Pale red paste 10 R 6/3; horizontal and diagonal combing ext.; smoke-blackened rim; fabric 2.
4	2418	Hole-mouth	074	Light reddish brown paste 2.5 YR 7/4; diagonal combing ext.; fabric 2.
5	1581	Hole-mouth	056	Weak red paste 10 R 5/4; fabric 2.
6	1797	Hole-mouth	064	Pinkish grey paste 5 YR 7/2; fabric 2.
7	2419	Hole-mouth	074	Light reddish brown paste 2.5 YR 7/4; smoke-blackened rim; fabric 1.
8	3634	Hole-mouth	102	Reddish brown paste 2.5 YR 5/3; fabric 3

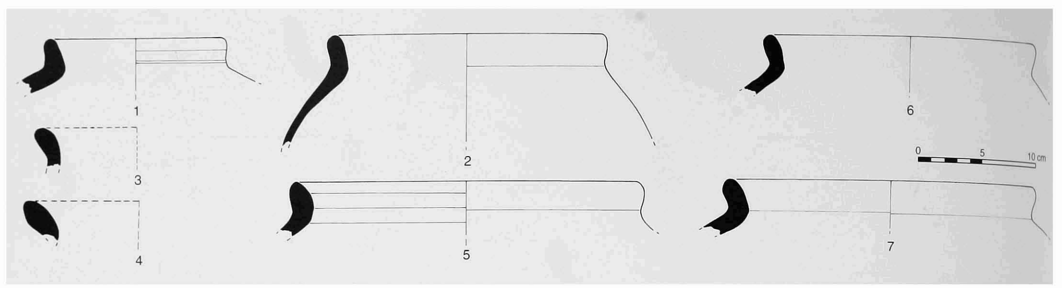


Plate 76.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	3711	Hole-mouth	105	Light red paste 10 R 6/6; fabric 2.
2	2084	Hole-mouth	075	Light red paste 10 R 6/6; smoke-blackened rim; fabric 2.
3	2314	Hole-mouth	073	Light red paste 10 R 6/6; fabric 2.
4	2428	Hole-mouth	074	Pale red paste 10 R 6/4; smoke-blackened rim; fabric 2.
5	1795	Hole-mouth	064	Light reddish brown paste 2.5 YR 7/2; fabric 2.
6	2062	Hole-mouth	075	Pale red paste 10 R 6/4; smoke-blackened rim; fabric 2.
7	2054	Hole-mouth	075	Light reddish brown paste 2.5 YR 7/4; fabric 2.

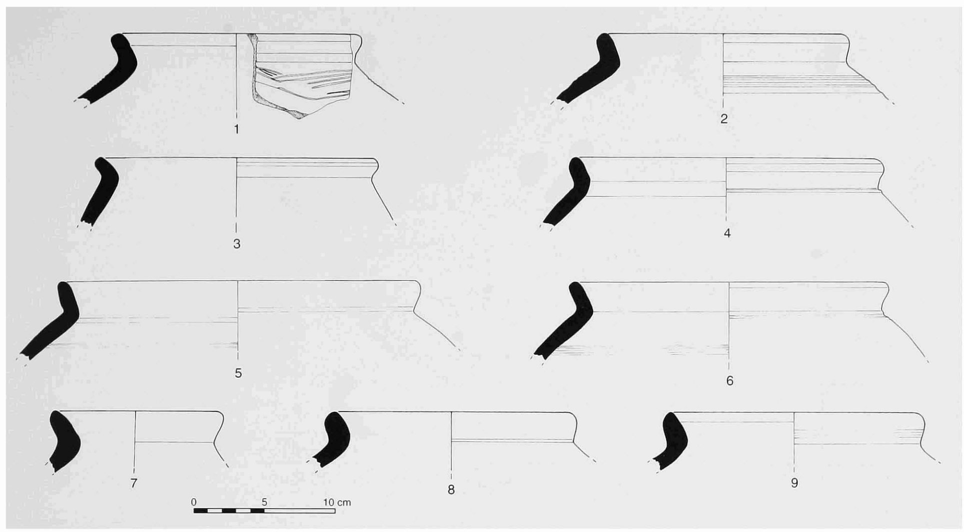


Plate 77.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	1910	Hole-mouth	062	Pale red paste 10 R 6/3; combing ext.; fabric 2.
2	3321	Hole-mouth	097	Light red paste 10 R 6/1; smoke-blackened rim; horizontal combing ext.; fabric 2.
3	1942	Hole-mouth	065	Light red paste 10 R 6/6; fabric 2.
4	1538	Hole-mouth	056	Light reddish brown paste 2.5 YR 7/4; fabric 2.
5	2307	Hole-mouth	073	Pale red paste 2.5 YR 6/2; fabric 2.
6	2321	Hole-mouth	073	Pale red paste 2.5 YR 6/2; fabric 2.
7	2449	Hole-mouth	074	Pale red paste 10 R 6/4; fabric 2.
8	2423	Hole-mouth	074	Pink paste 5 YR 8/3; fabric 2.
9	1569	Hole-mouth	056	Pale red paste 10 R 6/4; fabric 2.

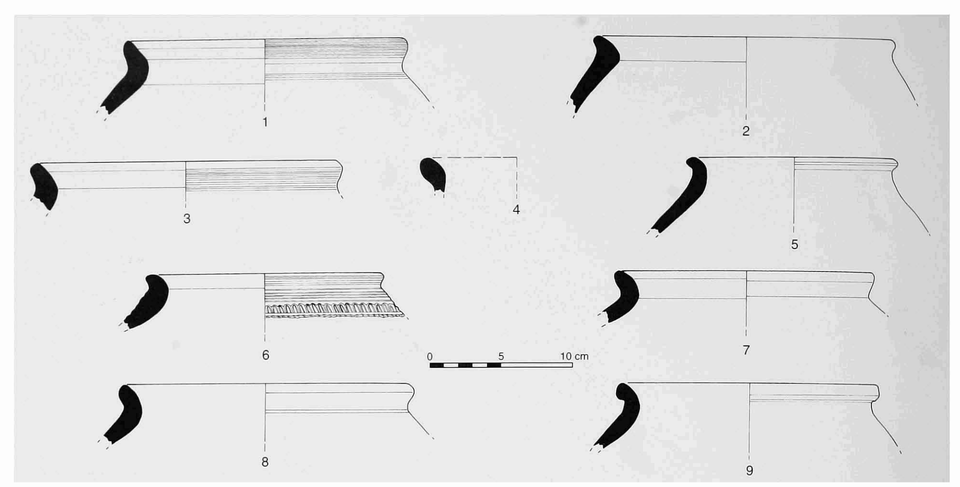


Plate 78.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	2514	Hole-mouth	080	Reddish grey paste 10 R 6/1; horizontal combing ext.; fabric 2.
2	15711	Hole-mouth	056	Light grey paste 5 YR 7/1; fabric 2.
3	2858	Hole-mouth	086	Pale red paste 2.5 YR 6/2; horizontal combing ext.; fabric 2.
4	1802	Hole-mouth	056	Light red paste 10 R 6/6; fabric 2.
5	3740	Hole-mouth	106	Pink paste 5 YR 8/3; fabric 2.
6	1528	Hole-mouth	056	Light reddish brown paste 2.5 YR 7/3; horizontal and vertical combing ext.; fabric 2.
7	2444	Hole-mouth	074	Pinkish white paste 5 YR 8/2; fabric 2.
8	1782	Hole-mouth	064	Light red paste 10 R 6/6; fabric 2.
9	2050	Hole-mouth	075	Light red paste 10 R 6/8; fabric 1.

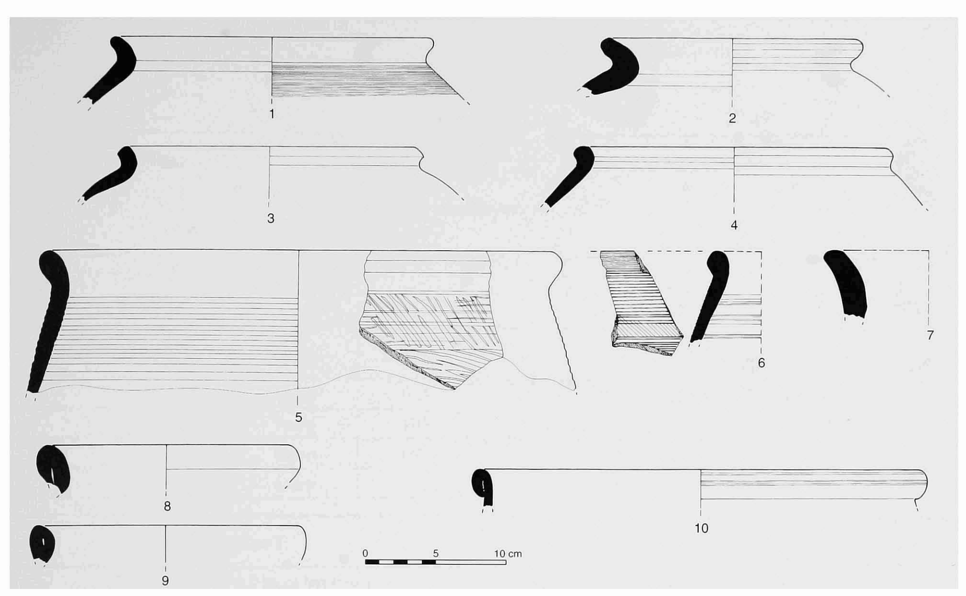


Plate 79.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	3722	Hole-mouth	106	Light red paste 2.5 YR 7/6; horizontal combing ext.; fabric 1.
2	3462	Hole-mouth	092	Pale red paste 10 R 6/4; fabric 2.
3	2048	Hole-mouth	075	Light reddish brown paste 2.5 YR 7/4; smoke-blackened rim; fabric 3.
4	2319	Hole-mouth	073	Light reddish brown paste 2.5 YR 6/3; fabric 2.
5	1577 1596	Hole-mouth	056	Light red paste 10 R 6/8; diagonal combing ext.; fabric 1.
6	1753	Hole-mouth	064	Red paste 10 R 5/6; horizontal and diagonal combing ext.; fabric 1.
7	3147	Hole-mouth	091	Pale red paste 10 R 6/4; fabric 3.
8	2518	Hole-mouth	080	Pale red paste 10 R 6/3; fabric 3.
9	4825	Hole-mouth	065	Reddish grey paste 10 R 6/1; fabric 3.
10	2861	Hole-mouth	086	Light red paste 2.5 YR 7/8; fabric 2.

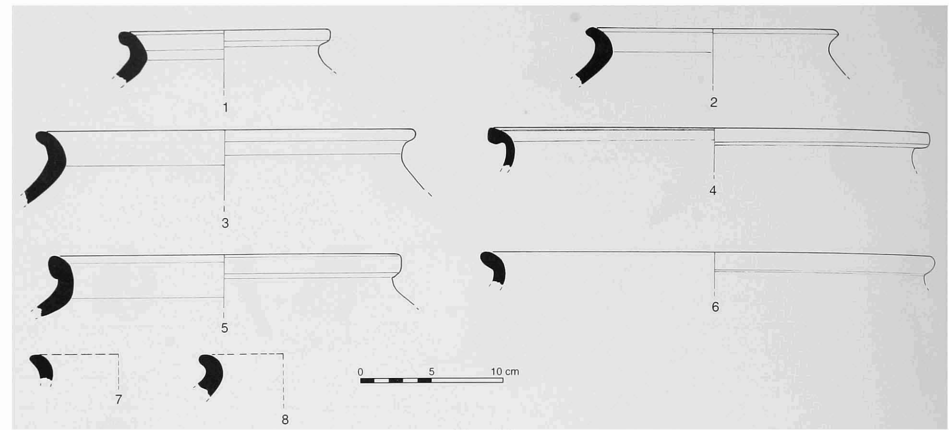


Plate 80.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	2862	Cooking pot	086	Light red paste 2.5 YR 6/6; fabric 2.
2	3143	Cooking pot	091	Dark reddish grey paste 10 R 4/1; fabric 3.
3	3149	Cooking pot	091	Pale red paste 10 R 6/4; fabric 2.
4	1935	Cooking pot	063	Dark reddish grey paste 2.5 YR 4/1; fabric 2.
5	2158	Cooking pot	077	Reddish grey paste 10 R 5/1; fabric 3.
6	2436	Cooking pot	074	Light red paste 10 R 6/6; smoke-blackened rim; fabric 2.
7	2562	Cooking pot	080	Red paste 10 R 5/6; fabric 3.
8	2875	Cooking pot	086	Light red paste 10 R 6/6; fabric 3.

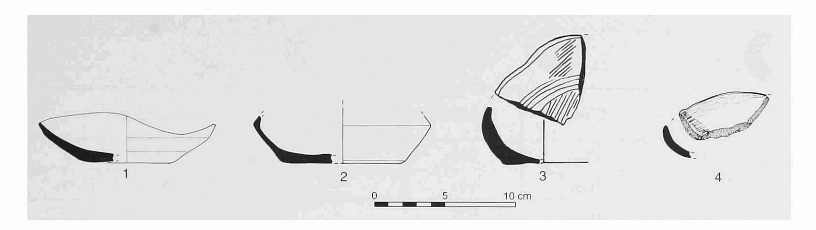


Plate 81.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	681	Lamp	024	Pale red paste 10 R 6/4; fabric 1.
2	3648	Lamp	102	Light reddish brown paste 2.5 YR 6/4; fabric 1.
3	1591	Lamp	080	Pale red paste 10 R 6/3; fabric 2.
4	17063	Lamp	113	Red paste 10 R 5/6; fabric 3.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	1601	Base	056	Red paste 10 R 5/8; fabric 1.
2	3504	Base	101	Pale red paste 2.5 YR 7/2; fabric 2.
3	2292	Base	072	Light red paste 10 R 6/6; fabric 2.
4	1791	Base	064	Red paste 10 R 5/6; fabric 1.
5	3123	Base	091	Pale red paste 2.5 YR 7/2; fabric 2.
6	15718	Base	022	Red paste 10 R 5/8; fabric 1.
7	3557	Base	113	Light red paste 2.5 YR 6/8; burnishing ext.; fabric 1.
8	1867	Base	060	Red paste 10 R 5/8; diagonal burnishing ext.; fabric 1.
9	1794	Base	064	Red paste 10 R 5/6; burnished ext.; fabric 1.
10	3075	Base	091	Weak red paste 10 R 5/4; fabric 1.
11	15720	Base	021	Light reddish brown paste 2.5 YR 7/4; fabric 2.
12	1932	Base	062	Weak red paste 10 R 5/4; fabric 1.
13	2860	Base	086	Red paste 10 R 4/8; vertical burnishing ext.; fabric 1.
14	1786	Base	064	Dark reddish grey paste 10 R 4/1; fabric 1.
15	2493	Base	080	Pale red paste 2.5 YR 7/2; red slip int.; fabric 2.
16	15719	Base	021	Light red paste 10 R 6/8; fabric 2.
17	1859	Base	060	Reddish grey paste 10 R 6/1; fabric 1.
18	3090	Base	091	Weak red paste 10 R 5/4; fabric 2.
19	2278	Base	072	Light red paste 10 R 6/8; fabric 1.
20	3191	Base	091	Pinkish white paste 5 YR 8/2; fabric 2.
21	2519	Base	080	Pale red paste 2.5 YR 7/2; horizontal combing ext.; fabric 2.
22	2107	Base	077	Pale red paste 10 R 6/3; fabric 1.
23	1590	Base	056	Red paste 10 R 5/6; vertical burnishing ext.; fabric 1.
24	17052	Base	056	Light red paste 10 R 6/6; horizontal combing ext.; fabric 2.
25	3489	Base	100	Weak red paste 10 R 5/3; fabric 1.
26	2852	Base	086	Light reddish brown paste 2.5 YR 6/4; combing ext.; fabric 1.
27	2340	Base	069	Reddish grey paste 10 R 5/1; fabric 1.
28	15703	Base	021	Pale red paste 10 R 6/4; fabric 1.
29	2876	Base	086	Pale red paste 10 R 6/4; fabric 1.
30	3063	Base	091	Light reddish brown paste 2.5 YR 7/4; red slip ext.; fabric 2.

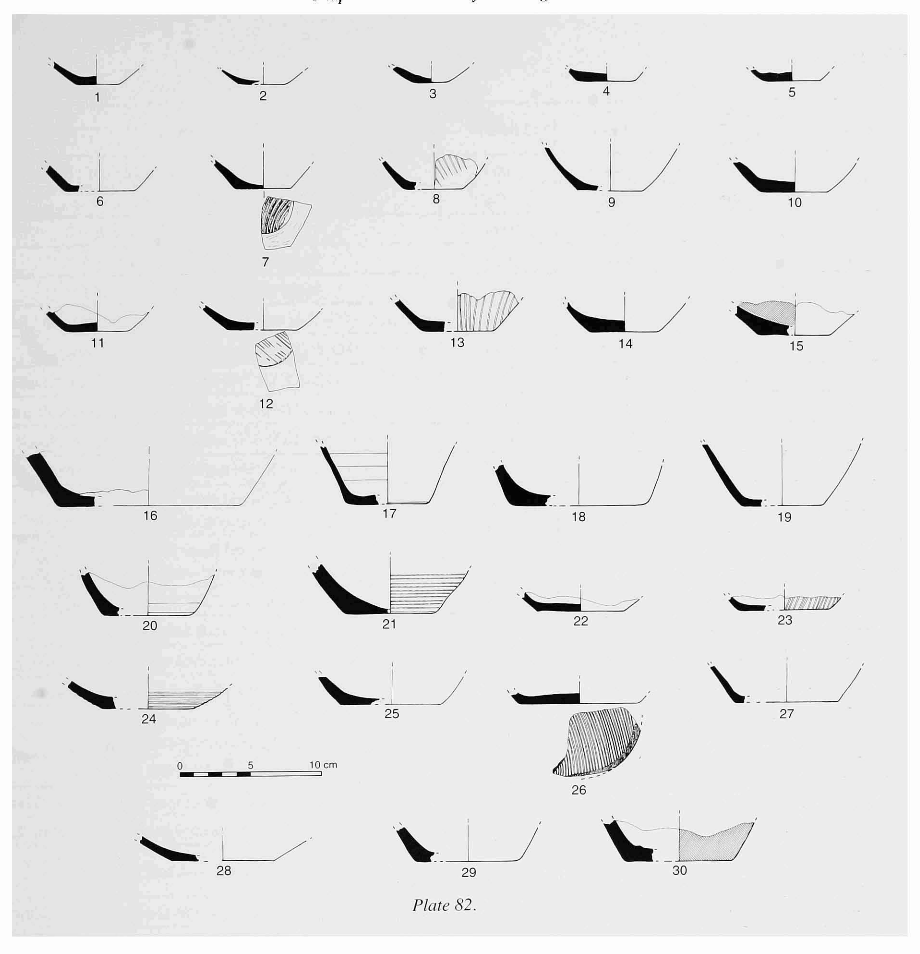

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Plate 82.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	1787	Base	064	Red paste 10 R 5/6; vertical combing ext.; fabric 1.
2	2440	Base	074	Red paste 10 R 4/6; fabric 1.
3	2497	Base	080	Red paste 10 R 5/6; fabric 2.
4	3080	Base	091	Weak red paste 10 R 5/4; fabric 1.
5	3183	Base	091	Light red paste 10 R 6/8; fabric 1.
6	1548	Base	056	Red paste 10 R 5/8; vertical and diagonal combing ext.; fabric 1.
7	1594	Base	056	Dark reddish grey paste 10 R 5/8; fabric 1.
8	2487	Base	080	Light red paste 2.5 YR 7/8; horizontal combing ext.; fabric 1.
9	1767	Base	064	Light red paste 10 R 6/6; horizontal combing ext.; fabric 2.
10	2101	Base	077	Pale red paste 10 R 6/3; vertical burnishing ext.; fabric 1.
11	1759	Base	064	Red paste 10 R 5/6; net burnishing ext.; fabric 1.
12	2414	Base	074	Light red paste 10 R 6/6; vertical and horizontal combing ext.; fabric 1.
13	2204	Base	075	Light red paste 10 R 6/8; vertical and horizontal combing ext.; fabric 1.
14	3959	Base	110	Red paste 2.5 YR 5/8; fabric 1.
15	2489	Base	080	Red paste 10 R 5/6; fabric 1.
16	1629	Base	056	Red paste 10 R 5/6; horizontal combing ext.; fabric 2.
17	1536	Base	056	Light reddish brown paste 2.5 YR 7/3; fabric 2.
18	3517	Base	101	Dark reddish grey paste 2.5 YR 4/1; diagonal burnishing ext.; fabric 2.
19	1806	Base	064	Light red paste 10 R 6/6; fabric 1.
20	2385	Base	071	Light red paste 2.5 YR 6/8; horizontal combing ext.; fabric 1.
21	3718	Base	106	Red paste 10 R 5/6; horizontal combing ext.; fabric 2.
22	1570 1568	Base	056	Light red paste 10 R 6/6; fabric 1.
23	1762	Base	064	Light red paste 10 R 6/6; horizontal combing ext.; fabric 2.

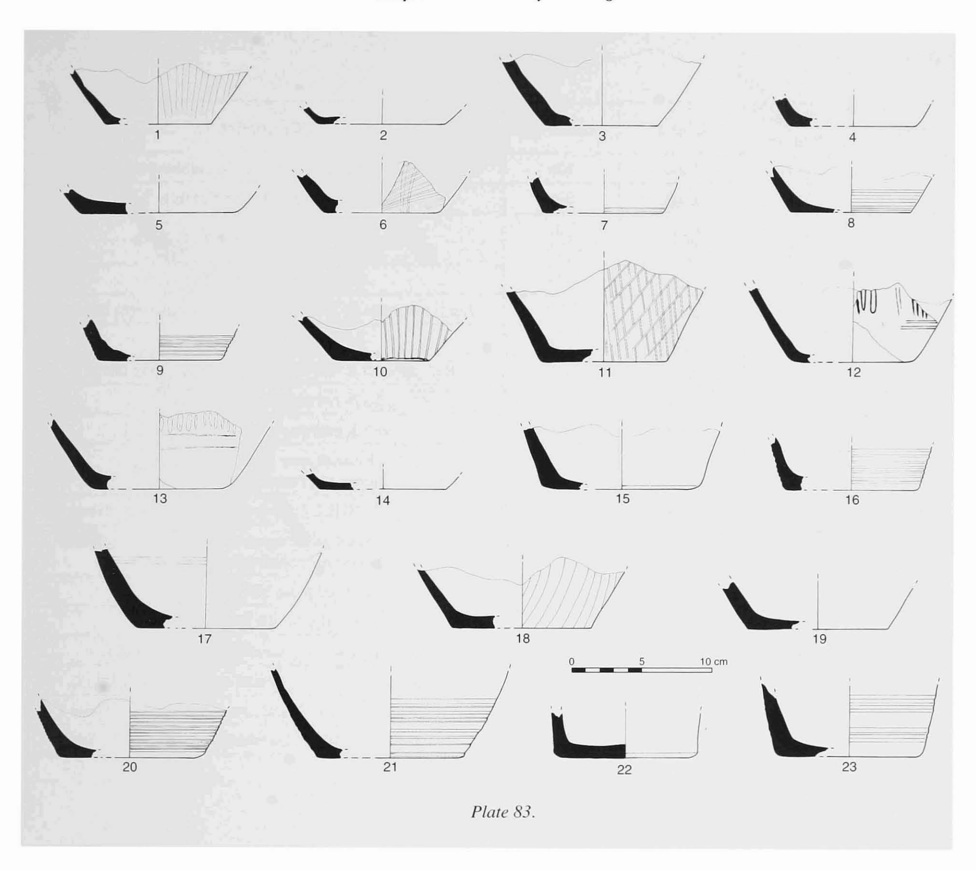


Plate 83.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	3719	Base	106	Light red paste 10 R 6/8; horizontal combing ext.; fabric 1.
2	1916	Base	062	Light red paste 10 R 6/8; fabric 2.
3	3515 3539	Base	101	Light red paste 2.5 YR 6/6; fabric 2.
4	2412	Base	074	Red paste 10 R 5/8; fabric 1.
5	2301	Base	072	Light red paste 10 R 6/8; horizontal combing ext.; fabric 2.
6	2143	Base	077	Red paste 10 R 5/8; fabric 1.
7	11397	Base	021	Red paste 10 R 5/8; horizontal combing ext.; fabric 1.
8	2484	Base	080	Light red paste 10 R 6/8; fabric 2.
9	1526	Base	056	Reddish grey paste 2.5 YR 5/1; fabric 1.
10	1583	Base	056	Reddish grey paste 2.5 YR 6/1; horizontal combing ext.; fabric 1.
11	2136	Base	077	Light red paste 10 R 6/6; horizontal combing ext.; fabric 2.
12	3516	Base	101	Reddish grey paste 2.5 YR 6/1; horizontal combing ext.; fabric 2.
13	3151	Base	091	Light red paste 10 R 6/6; fabric 1.
14	3150	Base	091	Pale red paste 10 R 6/3; fabric 1.
15	1546	Base	056	Dark reddish grey paste 2.5 YR 4/1; fabric 1.
16	1770	Base	064	Red paste 10 R 5/8; horizontal combing ext.; fabric 2.
17	1750	Base	064	Light red paste 10 R 6/8; horizontal combing ext.; fabric 2.
18	3067	Base	091	Light red paste 10 R 6/8; horizontal combing ext.; fabric 1.



Plate 84.

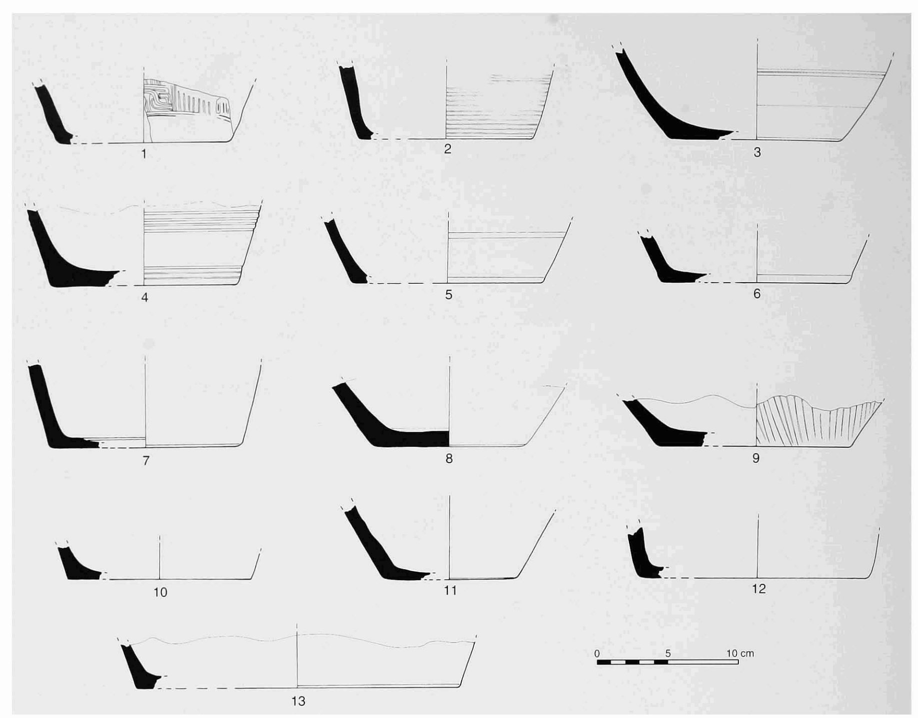


Plate 85.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	2845	Base	086	Light red paste 2.5 YR 6/8; combing ext.; fabric 1.
2	1589	Base	056	Red paste 10 R 5/6; horizontal combing ext.; fabric 1.
3	1519	Base	056	Light reddish brown paste 2.5 YR 7/4; horizontal combing ext.; fabric 2.
4	2469	Base	074	Light red paste 2.5 YR 6/6; horizontal combing ext.; fabric 2.
5	3572	Base	113	Light red paste 2.5 YR 6/6; fabric 1.
6	2848	Base	086	Red paste 2.5 YR 5/8; fabric 1.
7	3138	Base	091	Light red paste 10 R 6/8; fabric 1.
8	11398	Base	021	Red paste 2.5 YR 5/8; fabric 1.
9	3633 3651	Base	102	Pale red paste 2.5 YR 6/2; diagonal combing ext.; fabric 1.
10	2502	Base	080	Weak red paste 10 R 5/3; burnishing ext.; fabric 1.
11	2842	Base	086	Red paste 2.5 YR 5/8; fabric 1.
12	3490	Base	100	Light red paste 10 R 6/6; fabric 2.
13	1573	Base	056	Light red paste 10 R 6/6; fabric 2.

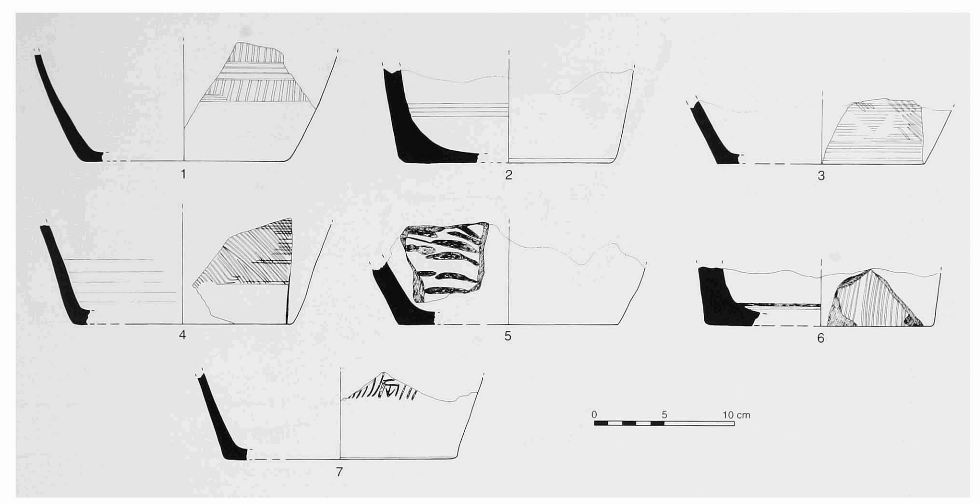
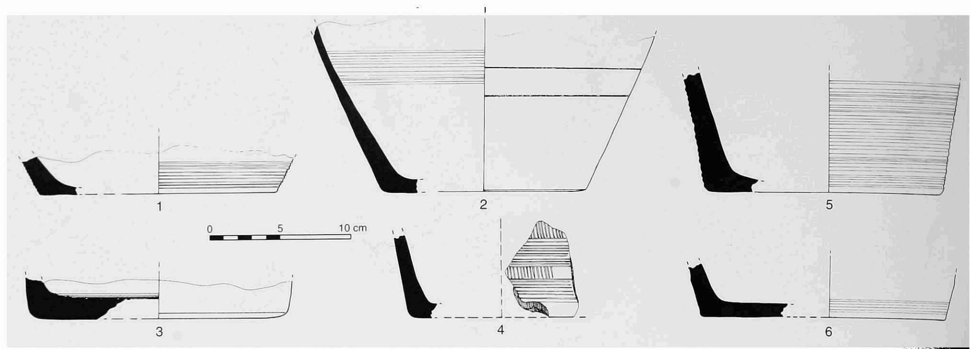


Plate 86.

STRATUM 5

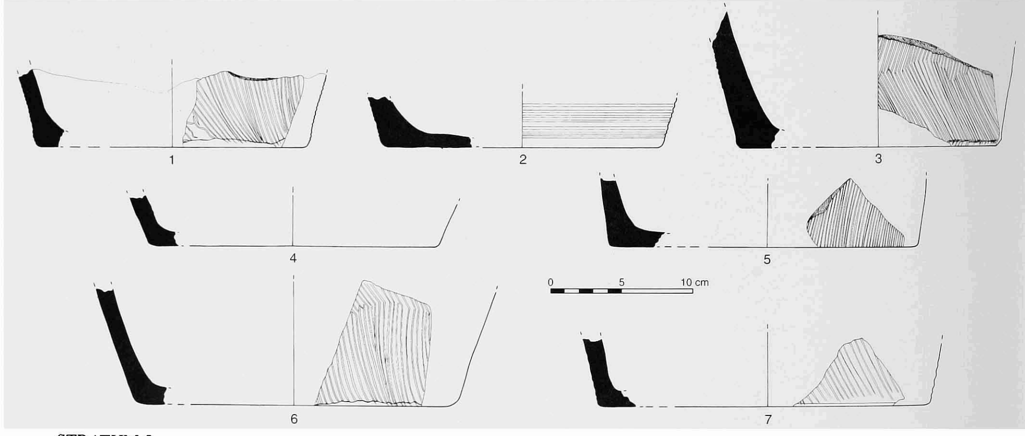
Number	Reg. Number	Object	Locus N°	Description
1	1854	Base	060	Red paste 10 R 5/6; vertical and horizontal combing ext.; fabric 1.
2	2368	Base	071	Light red paste 2.5 YR 6/8; fabric 2.
3	2411	Base	074	Light red paste 10 R 7/6; pattern combing ext.; fabric 1.
4	2480	Base	080	Light red paste 2.5 YR 6/8; diagonal and horizontal combing ext.; fabric 2.
5	2404	Base	074	Light red paste 2.5 YR 7/6; black paint int.; fabric 2.
6	2121	Base	077	Red paste 10 R 5/6; vertical combing ext.; fabric 2.
7	3061	Base	091	Weak red paste 10 R 5/3; pattern combing ext.; fabric 1.



STRATUM 5

Plate 87.

Number	Reg. Number	Object	Locus N°	Description
1	2560	Base	080	Red paste 10 R 5/6; horizontal combing ext.; fabric 1.
2	11280	Base	022	Red paste 10 R 5/8; fabric 2.
3	2271	Base	072	Dark reddish grey paste 10 R 4/1; fabric 1.
4	2851	Base	086	Red paste 10 R 5/8; pattern combing ext.; fabric 2.
5	1941	Base	065	Light red paste 10 R 6/6; horizontal combing ext.; fabric 2.
6	3077	Base	091	Weak red paste 10 R 5/3; horizontal combing ext.; fabric 1.



STRATUM 5

Plate 88.

Number	Reg. Number	Object	Locus N°	Description
1	2481	Base	080	Red paste 10 R 5/6; diagonal combing ext.; fabric 2.
2	1949	Base	065	Weak red paste 10 R 5/3; horizontal combing ext.; fabric 1.
3	1908	Base	062	Light red paste 10 R 6/8; pattern combing ext.; fabric 1.
4	1943	Base	065	Pale red paste 10 R 6/4; fabric 2.
5	3530	Base	101	Light red paste 2.5 YR 6/8; vertical combing ext.; fabric 2.
6	1907	Base	062	Light red paste 10 R 6/8; pattern combing ext.; fabric 1.
7	3716	Base	106	Light red paste 10 R 6/8; diagonal combing ext.; fabric 1.

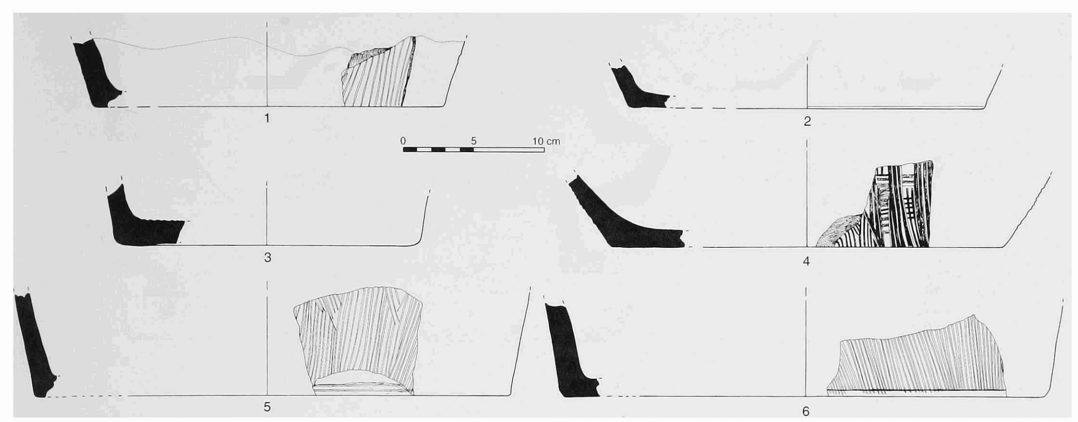


Plate 89.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	2485	Base	080	Light red paste 2.5 YR 6/6; vertical combing ext.; fabric 2.
2	2962	Base	060	Light red paste 2.5 YR 7/6; fabric 2.
3	3453	Base	092	Red paste 10 R 5/8; fabric 1.
4	1837	Base	060	Light red paste 10 R 6/6; pattern combing ext.; fabric 1.
5	1535	Base	056	Light red paste 2.5 YR 6/8; pattern combing ext.; fabric 2.
6	2366	Base	071	Light red paste 2.5 YR 7/8; vertical combing ext.; fabric 1.

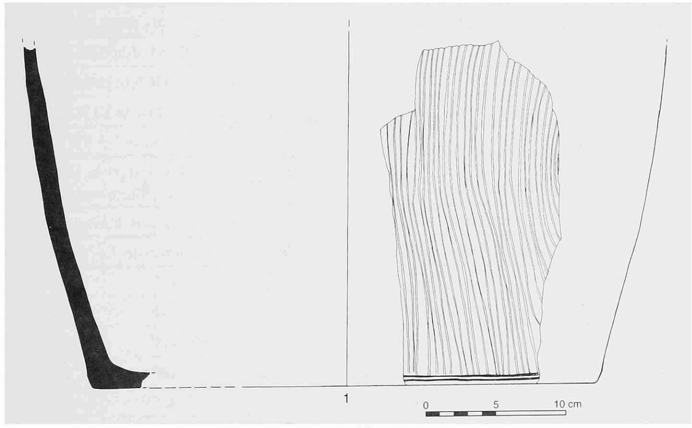


Plate 90.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	17065	Base	060	Light red paste 10 R 6/8; vertical combing ext.; fabric 1 (**photo 16**, p. 72).

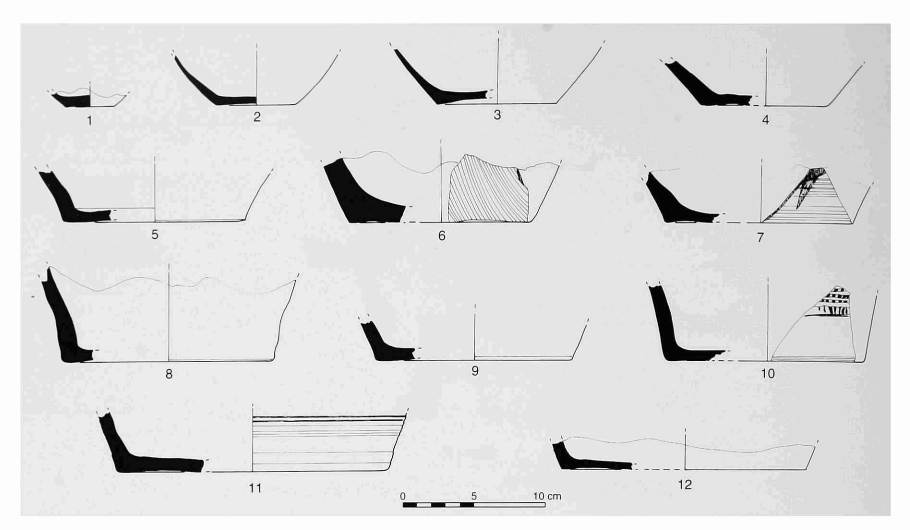


Plate 91.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	2378	Base	071	Light red paste 2.5 YR 6/8; fabric 1.
2	1540	Base	056	Reddish grey paste 2.5 YR 5/1; fabric 1.
3	1944	Base	065	Dark reddish grey paste 10 R 4/1; fabric 2.
4	3047	Base	091	Reddish grey paste 10 R 5/1; fabric 2.
5	2483	Base	080	Reddish grey paste 10 R 5/1; fabric 1.
6	2446	Base	074	Pink paste 5 YR 8/3; diagonal combing ext.; fabric 2.
7	2413	Base	074	Light red paste 2.5 YR 6/6; pattern combing ext.; fabric 2.
8	2476	Base	080	Light red paste 10 R 6/8; fabric 2.
9	3954	Base	110	Light red paste 2.5 YR 7/6; fabric 2.
10	3135	Base	091	Pale red paste 10 R 6/4; horizontal and pattern combing ext.; fabric 1.
11	3548	Base	101	Light red paste 2.5 YR 6/8; horizontal combing ext.; fabric 1.
12	644	Base	020	Light red paste 2.5 YR 7/6; fabric 2.

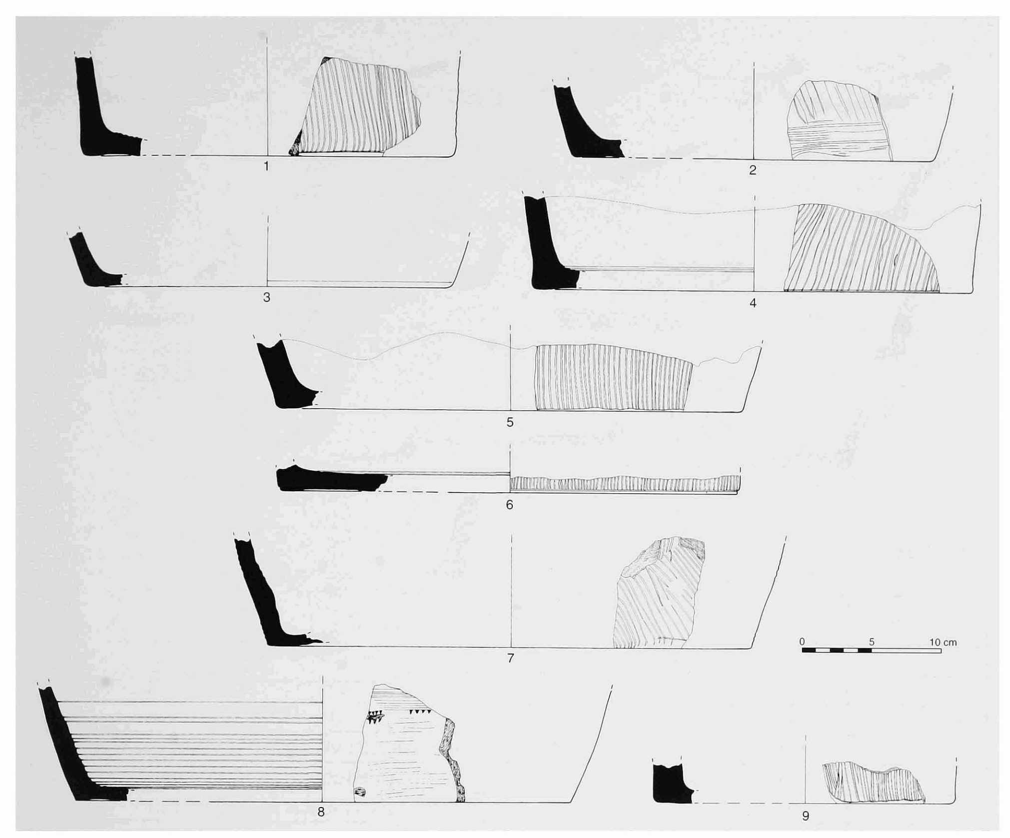


Plate 92.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	3154	Base	091	Dark reddish grey paste 10 R 4/1; vertical combing ext.; fabric 1.
2	3480	Base	100	Red paste 10 R 5/6; pattern combing ext.; fabric 1.
3	3948	Base	110	Light red paste 10 R 6/8; fabric 2.
4	1537	Base	056	Light red paste 10 R 6/8; diagonal combing ext.; fabric 2.
5	1579	Base	056	Light red paste 10 R 6/8; vertical combing ext.; fabric 2.
6	2478	Base	080	Pale red paste 2.5 YR 7/2; vertical combing ext.; fabric 1.
7	2155	Base	077	Weak red paste 10 R 5/4; pattern combing ext.; fabric 1.
8	2496	Base	080	Reddish grey paste 2.5 YR 5/1; pattern combing ext.; fabric 2.
9	2457	Base	074	Red paste 10 R 5/6; vertical combing ext.; fabric 2.

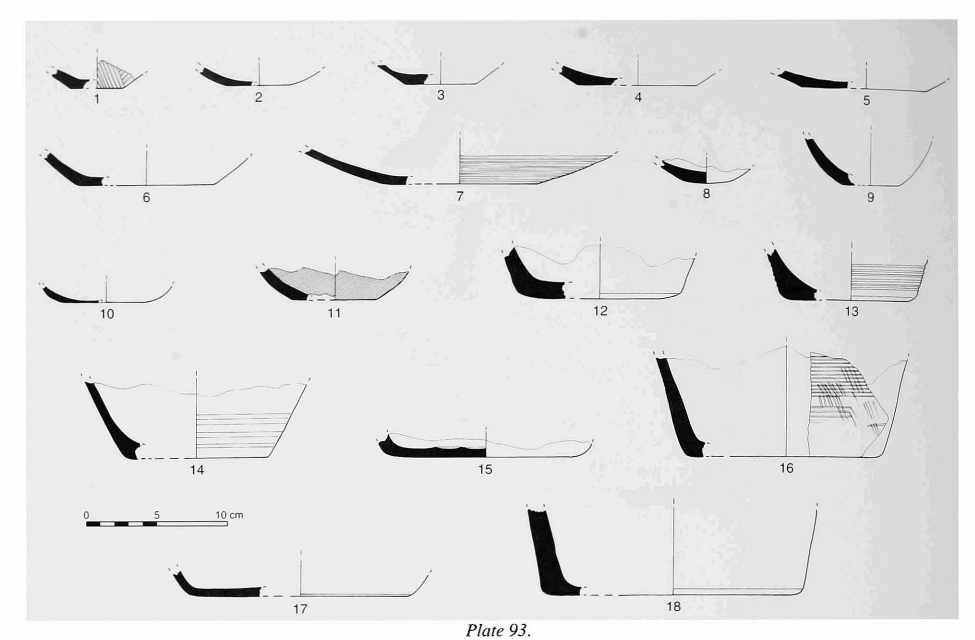


Plate 93.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	1868	Base	060	Red paste 10 R 5/8; diagonal burnishing ext.; fabric 1.
2	2527	Base	080	Light red paste 2.5 YR 7/6; fabric 2.
3	11399	Base	021	Light red paste 2.5 YR 7/6; fabric 2.
4	3479	Base	100	Red paste 10 R 5/8; fabric 2.
5	3305	Base	097	Red paste 10 R 5/6; fabric 2.
6	2149	Base	077	Red paste 10 R 5/8; fabric 1.
7	3528	Base	101	Red paste 2.5 YR 5/8; horizontal combing ext.; fabric 2.
8	3303	Base	097	Red paste 10 R 5/6; fabric 1.
9	2430	Base	074	Light reddish brown paste 2.5 YR 7/4; fabric 2.
10	2505	Base	080	Light reddish brown paste 2.5 YR 7/4; fabric 2.
11	3566	Base	113	Light reddish brown paste 2.5 YR 7/4; red slip int. and ext.; fabric 2.
12	2541	Base	080	Red paste 10 R 5/6; fabric 1.
13	1952	Base	065	Red paste 10 R 5/6; horizontal combing ext.; fabric 1.
14	2459	Base	074	Light red paste 10 R 6/6; horizontal combing ext.; fabric 2.
15	3547	Base	101	Light red paste 2.5 YR 6/8; fabric 1.
16	2517	Base	080	Red paste 10 R 5/6; pattern combing ext.; fabric 1.
17	2521	Base	080	Pale red paste 10 R 6/3; fabric 1.
18	2274	Base	072	Pale red paste 10 R 6/4; fabric 1.

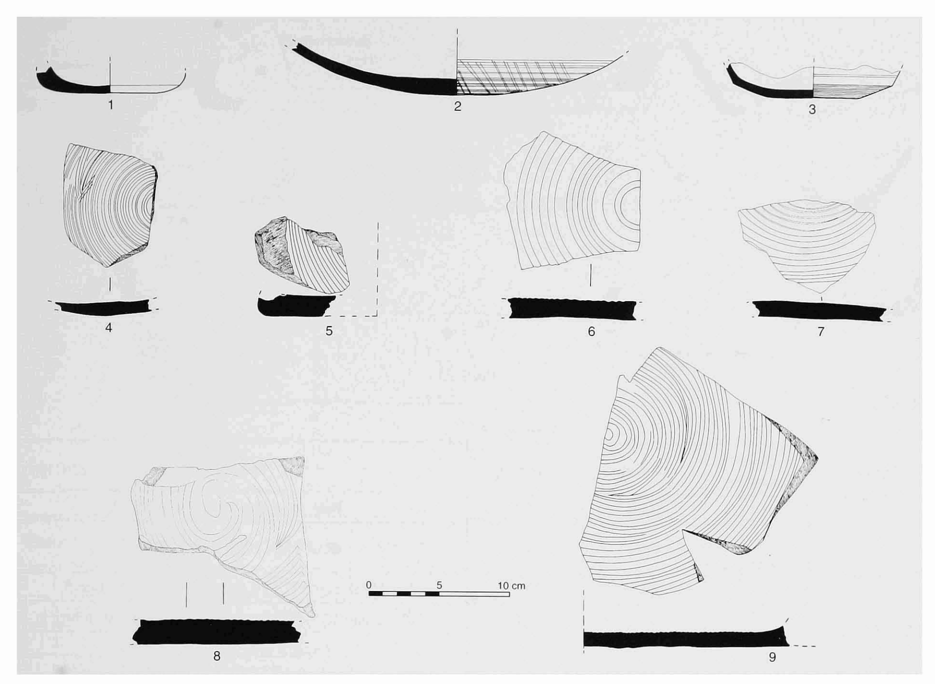


Plate 94.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	3639	Base	102	Light red paste 2.5 YR 7/8; fabric 2.
2	1851	Base	060	Light red paste 2.5 YR 7/6; pattern combing ext.; fabric 2.
3	2382	Base	071	Reddish grey paste 2.5 YR 6/1; horizontal combing ext.; fabric 2.
4	3570	Base	113	Light reddish brown paste 2.5 YR 7/4; fabric 1.
5	3579	Base	113	Light red paste 2.5 YR 6/8; fabric 1.
6	3577	Base	113	Light red paste 2.5 YR 6/8; fabric 1.
7	1523	Base	056	Light red paste 2.5 YR 6/8; fabric 1.
8	3475	Base	100	Weak red paste 10 R 5/4; fabric 1.
9	2270	Base	075	Light red paste 10 R 6/8; fabric 1.

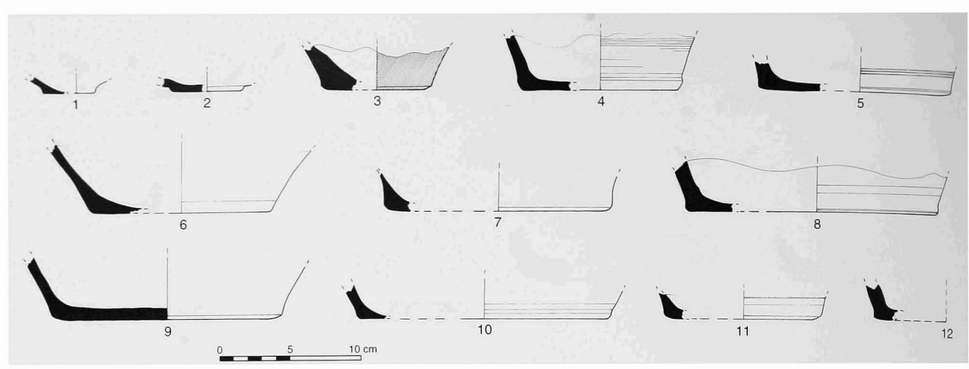


Plate 95.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	1617	Base	056	Pale red paste 10 R 6/4; fabric 1.
2	3507 3510	Base	101	Red paste 2.5 YR 5/8; fabric 2.
3	3168	Base	091	White paste 7.5 YR 8/1; red slip ext.; fabric 5.
4	2500	Base	080	Red paste 10 R 5/6; horizontal combing ext; fabric 1.
5	3580	Base	113	Reddish grey paste 2.5 YR 5/1; horizontal combing ext.; fabric 1.
6	2464	Base	074	Light red paste 10 R 6/8; fabric 2.
7	3555	Base	113	Light red paste 2.5 YR 6/6; fabric 1.
8	2272	Base	071	Red paste 10 R 5/6; fabric 1.
9	3562	Base	113	Light red paste 2.5 YR 6/6; fabric 1.
10	1547	Base	056	Red paste 10 R 5/6; horizontal combing ext.; fabric 1.
11	2456	Base	074	Pale red paste 10 R 6/4; fabric 1.
12	2135	Base	077	Light red paste 10 R 6/8; fabric 1.

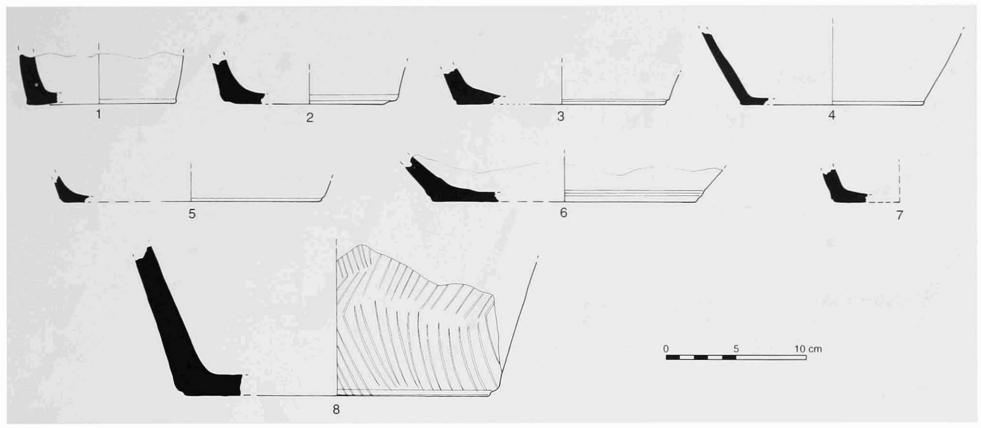


Plate 96.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	3310	Base	097	Light red paste 10 R 6/6; fabric 1.
2	1783	Base	064	Light red paste 10 R 6/6; fabric 2.
3	1805	Base	064	Red paste 10 R 5/8; fabric 1.
4	3702	Base	105	Reddish grey paste 2.5 YR 5/1; fabric 1.
5	2540	Base	080	Red paste 10 R 5/8; fabric 1.
6	2156	Base	077	Red paste 10 R 5/8; fabric 1.
7	2138	Base	077	Light red paste 10 R 6/8; fabric 1.
8	1940	Base	065	Weak red paste 10 R 5/3; pattern combing ext.; fabric 1.

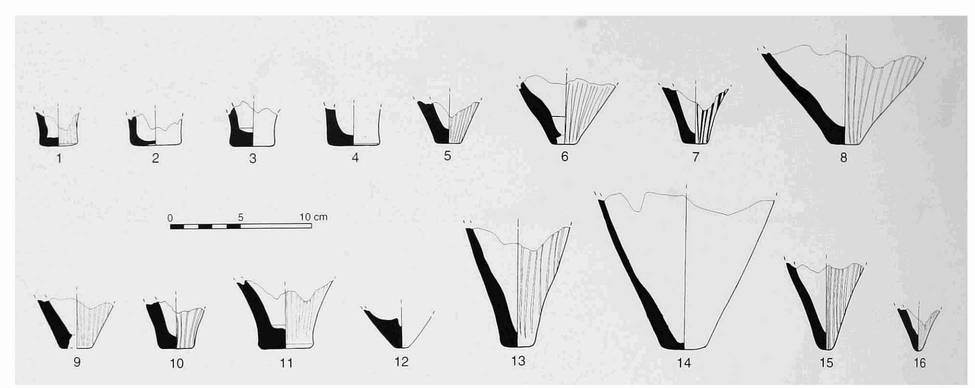


Plate 97.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	1614	Base	056	Dark reddish grey paste 10 R 4/1; vertical burnishing ext.; fabric 1.
2	2535	Base	080	Red paste 10 R 5/6; vertical burnishing ext.; fabric 1.
3	3451	Base	092	Light red paste 10 R 6/8; vertical burnishing ext.; fabric 1.
4	3064	Base	091	Dark reddish grey paste 10 R 4/1; fabric 1.
5	3513	Base	101	Light red paste 2.5 YR 6/8; vertical burnishing ext.; fabric 1.
6	3079	Base	091	Red paste 10 R 5/8; vertical burnishing ext.; fabric 1.
7	1605	Base	056	Red paste 10 R 5/6; vertical burnishing ext.; fabric 1.
8	1773	Base	064	Red paste 10 R 5/8; vertical burnishing ext.; fabric 1.
9	1553	Base	056	Light red paste 2.5 YR 6/8; vertical burnishing ext.; fabric 2.
10	2134	Base	077	Light red paste 10 R 6/6; vertical burnishing ext.; fabric 1.
11	1522	Base	056	Light red paste 2.5 YR 6/8; vertical burnishing ext.; fabric 2.
12	11400	Base	021	Red paste 10 R 5/8; fabric 1.
13	1765	Base	064	Red paste 10 R 5/8; vertical burnishing ext.; fabric 1.
14	17069	Base	022	Red paste 10 R 5/8; fabric 1.
15	1789	Base	064	Red paste 10 R 5/8; vertical burnishing ext.; fabric 1.
16	1613	Base	056	Red paste 10 R 5/6; vertical burnishing ext.; fabric 1.

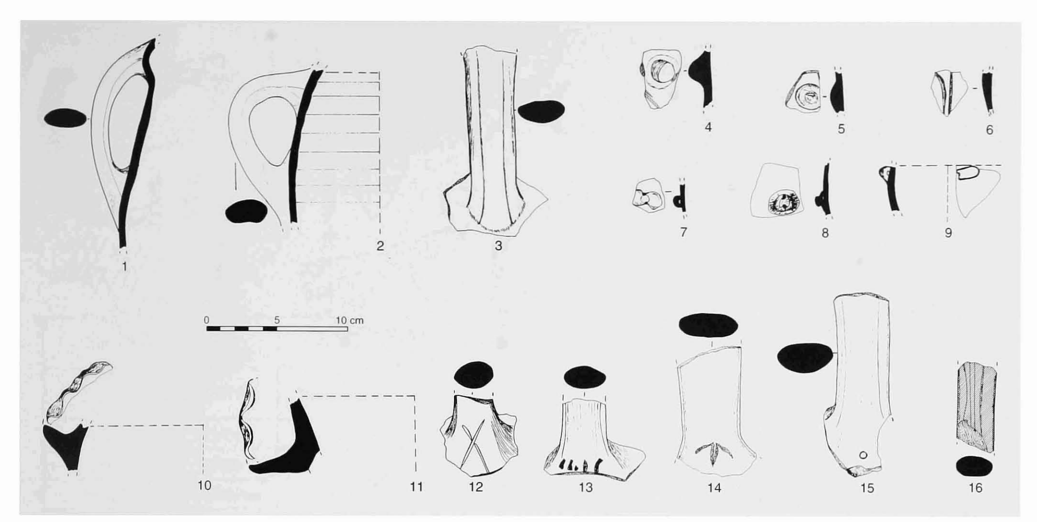


Plate 98.

STRATUM 5

Number	Reg. Number	Object	Locus N°	Description
1	1921	Loop handle	062	Red paste 10 R 5/8; burnished ext.; fabric 1.
2	1934	Loop handle	063	Light red paste 2.5 YR 7/6; fabric 2.
3	3626	Loop handle	102	Light red paste 2.5 YR 6/8; fabric 1.
4	2393	Lug handle	071	Light red paste 2.5 YR 7/6; fabric 2.
5	3643	Lug handle	102	Light red paste 2.5 YR 6/8; fabric 2.
6	3761	Lug handle	106	Light red paste 2.5 YR 7/6; fabric 2.
7	2105	Lug handle	077	Red paste 10 R 5/8; fabric 2.
8	3631	Lug handle	102	Reddish grey paste 2.5 YR 5/1; fabric 1.
9	2339	Lug handle	069	Light red paste 2.5 YR 6/6; fabric 2.
10	1615	Ledge handle	056	Light red paste 10 R 6/6; fabric 2.
11	2065	Ledge handle	075	Light red paste 10 R 6/8; fabric 2.
12	1760	Loop handle	064	Red paste 10 R 5/8; incised X; fabric 1.
13	3745	Loop handle	106	Light red clay 2.5 YR 7/6; vertical incisions; fabric 2.
14	11401	Loop handle	021	Light reddish brown paste 2.5 YR 7/4; two incised V motifs; fabric 2 (**photo 18**, p. 73).
15	11402	Loop handle	021	Light reddish brown paste 2.5 YR 7/4; punctured hole; fabric 2.
16	3070	Loop handle	091	Light red paste 10 R 6/6; red slip; fabric 3.

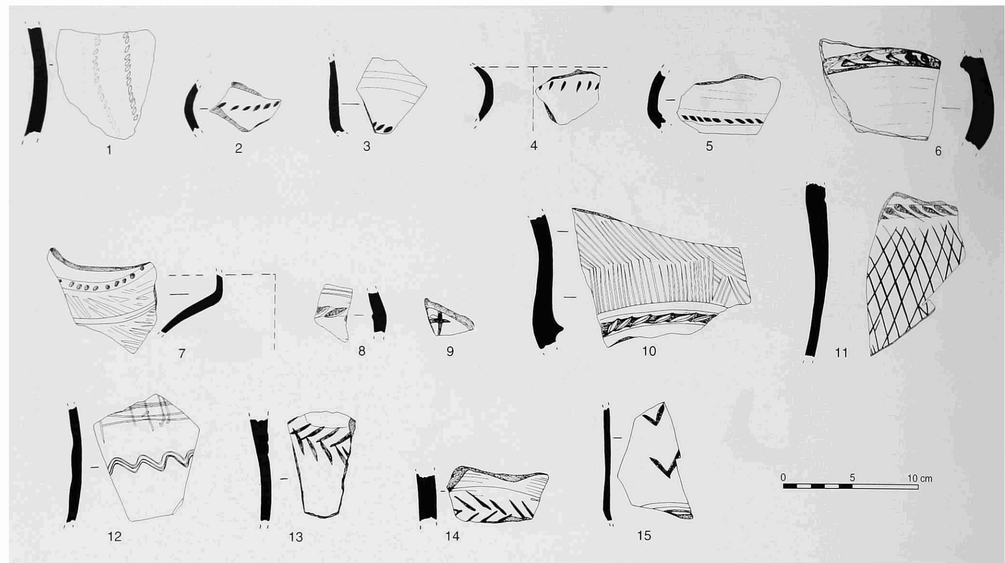
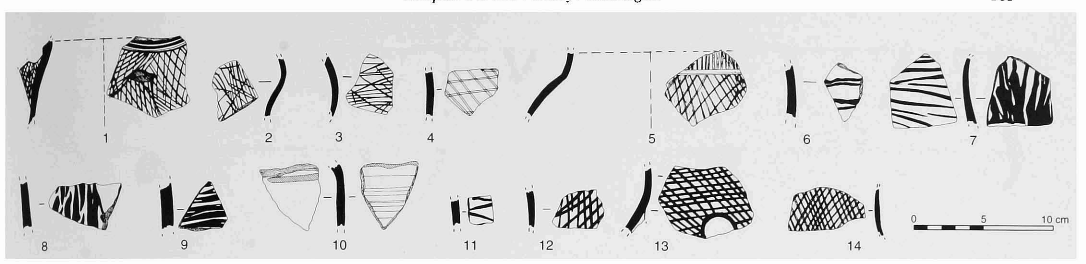


Plate 99.

STRATUM 5

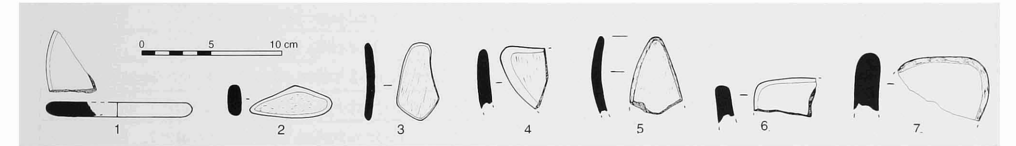
Number	Reg. Number	Object	Locus N°	Description
1	3552	Body sherd	113	Pink paste 5 YR 8/3; two rows of oval incisions ext.; fabric 2.
2	2559	Body sherd	080	Red paste 10 R 5/6; one row of oval incisions ext.; fabric 1.
3	1800	Body sherd	064	Red paste 10 R 5/8; burnished ext.; one row of oval incisions ext.; fabric 1.
4	3316	Body sherd	097	Light red paste 10 R 6/6; one row of oval incisions ext.; fabric 2.
5	3728	Body sherd	106	Light red paste 10 R 6/8; one row of oval incisions ext.; fabric 1.
6	11281	Body sherd	022	Light red paste 2.5 YR 6/8; incisions on ridge ext.; fabric 1.
7	1769	Body sherd	064	Dark reddish grey paste 10 R 4/1; one row of oval incisions on junction between neck and shoulder; diagonal and horizontal combing ext.; fabric 1.
8	610	Body sherd	023	Red paste 10 R 5/8; row of oval incisions; fabric 1.
9	2113	Body sherd	077	Light red paste 10 R 6/8; incised X motif ext.; fabric 1.
10	1761	Body sherd	064	Red paste 10 R 5/8; incisions on ridge and pattern combing ext.; fabric 1.
11	677	Body sherd	024	Red paste 10 R 5/8; row of incisions; net burnishing ext.; fabric 1.
12	2164	Body sherd	077	Red paste 10 R 5/6; net burnishing and wavy incisions ext.; fabric 1.
13	3636	Body sherd	102	Red paste 2.5 YR 5/8; incised herringbone design ext.; fabric 1.
14	2316	Body sherd	073	Light red paste 10 R 6/6; incised herringbone design ext.; fabric 2.
15	3950	Body sherd	110	Light red paste 2.5 YR 7/6; V-shaped incisions; fabric 2 (**photo 17**, p. 73).



STRATUM 5

Plate 100.

Number	Reg. Number	Object	Locus N°	Description
1	3071	Body sherd	091	Red paste 10 R 5/8; ridge on junction between neck and shoulder; net black paint ext.; fabric 1.
2	3101	Body sherd	091	Red paste 10 R 5/6; net burnishing ext.; fabric 1.
3	3086	Body sherd	091	Red paste 10 R 5/6; net burnishing ext.; fabric 1.
4	2870	Body sherd	086	Red paste 10 R 5/6; net burnishing ext.; fabric 1.
5	3549	Body sherd	101	Red paste 10 R 5/6; vertical burnishing on neck and net burnishing on body ext.; fabric 1.
6	11403	Body sherd	022	Light red paste 10 R 6/6; black horizontal lines painted ext.; fabric 2.
7	1776	Body sherd	064	Red paste 10 R 5/8; black paint int. and ext.; fabric 2.
8	3551	Body sherd	101	Red paste 2.5 YR 5/8; black paint ext.; fabric 1.
9	1814	Body sherd	064	Red paste 10 R 5/8; horizontal black paint ext.; fabric 1.
10	1571	Body sherd	056	Light red paste 10 R 6/8; burnished; horizontal black paint ext.; fabric 1.
11	3040	Body sherd	086	Light red paste 10 R 6/8; black paint ext.; fabric 2.
12	2317	Body sherd	073	Pale red paste 2.5 YR 6/2; black painted net pattern ext.; fabric 1.
13	3444	Body sherd	092	Red paste 10 R 5/8; black painted net pattern ext.; fabric 1.
14	3445	Body sherd	092	Red paste 10 R 5/8; burnished net pattern ext.; fabric 1.



STRATUM 5

Plate 101.

Number	Reg. Number	Object	Locus N°	Description
1	2338	Circular-shaped body sherd	069	Light red paste 10 R 6/8; fabric 1.
2	3106	Triangular-shaped body sherd	091	Light red paste 10 R 6/6; fabric 2.
3	3187	Triangular-shaped body sherd	091	Light red paste 10 R 6/8; fabric 2.
4	3630	Triangular-shaped body sherd	102	Light red paste 2.5 YR 6/6; fabric 1.
5	2549	Triangular-shaped body sherd	080	Red paste 10 R 5/6; fabric 1.
6	3644	Square-shaped body sherd	102	Light red paste 2.5 YR 6/8; fabric 1.
7	3652	Square-shaped body sherd	102	Light reddish brown paste 2.5 YR 6/3; fabric 1.

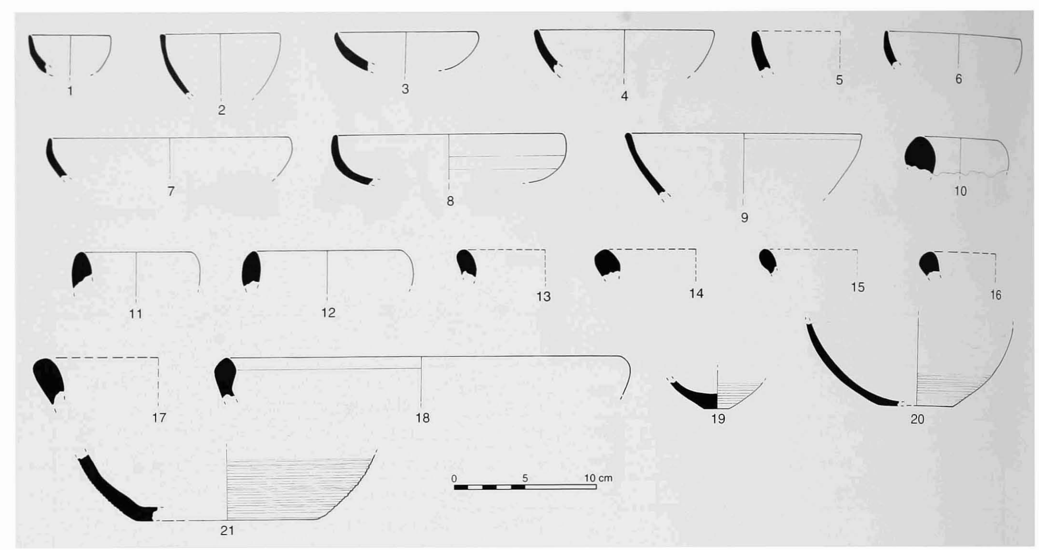


Plate 102.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	11329	Bowl	007	Light red paste 2.5 YR 7/6; fabric 1.
2	619	Bowl	008	Light red paste 2.5 YR 7/6; fabric 1.
3	11305	Bowl	008	Light red paste 2.5 YR 7/6; fabric 1.
4	1239	Bowl	047	Pale red paste 10 R 6/4; burnished ext.; fabric 1.
5	1175	Bowl	046	Pink paste 5 YR 8/4; red slip int.; fabric 5.
6	11291	Bowl	011	Pale red paste 2.5 YR 6/6; burnished ext.; fabric 1.
7	7425	Bowl	175	Pale red paste 10 R 6/4; fabric 1.
8	3587	Bowl	093	Red paste 10 R 5/6; fabric 2.
9	1240	Bowl	047	Red paste 10 R 5/6; fabric 1.
10	7436	Bowl	175	Light reddish brown paste 2.5 YR 7/3; fabric 2.
11	7159	Bowl	165	Light red paste 2.5 YR 7/6; fabric 2.
12	7701	Bowl	181	Light red paste 2.5 YR 7/6; fabric 2.
13	7434	Bowl	175	Light red paste 10 R 6/6; fabric 1.
14	7457	Bowl	175	Pale red paste 10 R 6/3; fabric 2.
15	7459	Bowl	175	Light red paste 10 R 6/8; fabric 2.
16	1138	Bowl	045	Pale red paste 10 R 6/3; fabric 2.
17	11340	Bowl	007	Red paste 10 R 5/6; fabric 3.
18	7728	Bowl	181	Light red paste 2.5 YR 7/6; fabric 2.
19	9975	Bowl	265	Red paste 10 R 5/6; horizontal combing ext.; fabric 1.
20	1339	Bowl	052	Red paste 10 R 5/6; horizontal combing ext.; fabric 1.
21	3034	Bowl	081	Weak red paste 10 R 5/4; horizontal combing ext.; fabric 1.

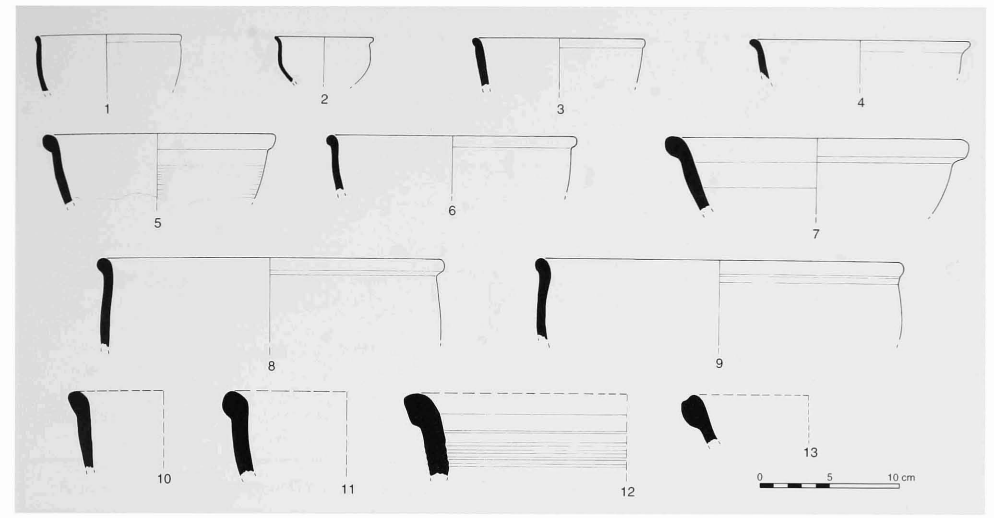


Plate 103.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	11362	Bowl	008	Light red paste 10 R 6/8; fabric 2.
2	955	Bowl	043	Light red paste 2.5 YR 7/6; fabric 2.
3	1174	Bowl	046	Light reddish brown paste 2.5 YR 6/4; fabric 2.
4	4300	Bowl	038	Light red paste 10 R 6/8; fabric 2.
5	1315	Bowl	052	Light red paste 10 R 6/6; fabric 2.
6	2611	Bowl	082	Pink paste 5 YR 7/4; fabric 2.
7	7722	Bowl	181	Light red paste 10 R 6/6; fabric 2.
8	1513	Bowl	053	Light red paste 10 R 6/8; fabric 2.
9	4292	Bowl	038	Light reddish brown paste 2.5 YR 6/4; fabric 2.
10	2591	Bowl	082	Light reddish brown paste 2.5 YR 7/4; fabric 2.
11	2606	Bowl	082	Pale red paste 2.5 YR 7/2; light combing ext.; fabric 2.
12	7691	Bowl	181	Light red paste 10 R 6/8; fabric 2.
13	7158	Bowl	165	Pink paste 5 YR 7/4; fabric 2.

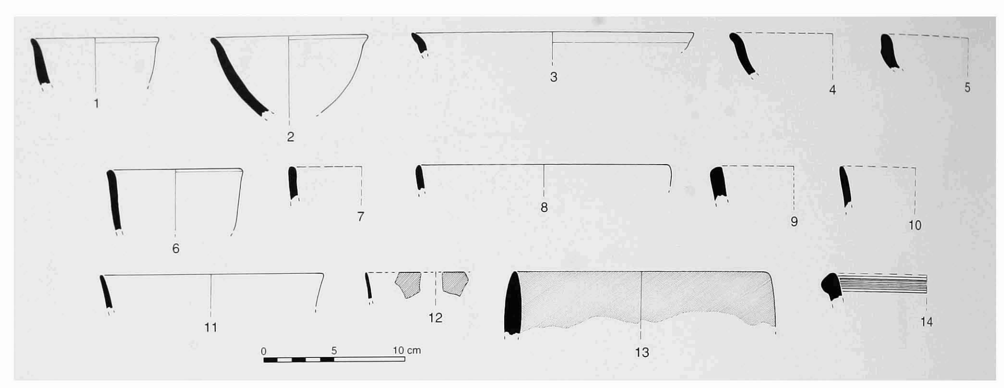


Plate 104.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	3038	Bowl	081	Pink paste 7.5 YR 7/3; fabric 1.
2	3030	Bowl	081	Pink paste 7.5 YR 7/3; fabric 1.
3	7718	Bowl	181	Light red paste 10 R 6/8; fabric 2.
4	7183	Bowl	165	Light red paste 2.5 YR 7/6; fabric 2.
5	7000	Bowl	156	Weak red paste 10 R 5/2; fabric 1.
6	2604	Bowl	082	Pink paste 5 YR 7/4; fabric 1.
7	1423	Bowl	052	Light red paste 2.5 YR 7/6; fabric 2.
8	1169	Bowl	046	Light red paste 2.5 YR 6/8; fabric 2.
9	7758	Bowl	181	Light red paste 10 R 6/8; fabric 1.
10	7696	Bowl	181	Light red paste 10 R 6/8; fabric 1.
11	1234	Bowl	047	Light red paste 2.5 YR 7/6; fabric 1.
12	1506	Bowl	053	Light red paste 10 R 6/8; red slip int. and ext.; fabric 2.
13	1464	Bowl	053	Light red paste 2.5 YR 7/8; red slip int. and ext.; fabric 1.
14	11346	Bowl	011	Light reddish brown paste 2.5 YR 7/4; fabric 2.

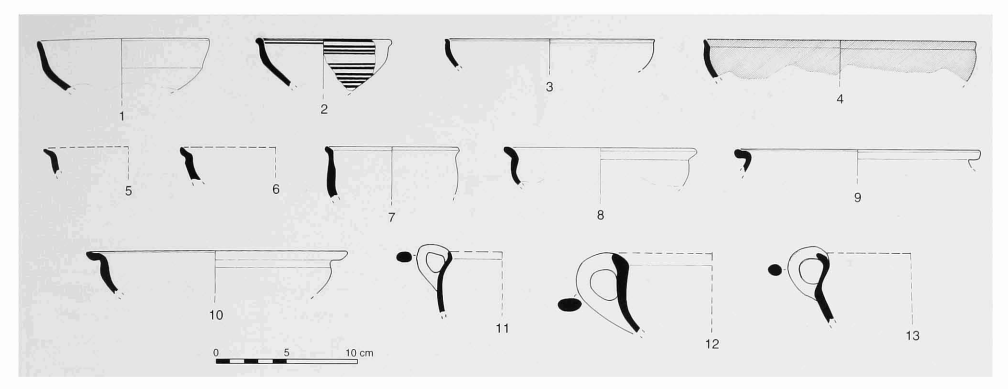


Plate 105.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	11357	Bowl	008	Light red paste 10 R 6/6; burnished ext. and int.; fabric 1.
2	11372	Bowl	007	Light reddish brown paste 2.5 YR 7/4; horizontal black paint ext.; fabric 2.
3	1428	Bowl	052	Light reddish brown paste 2.5 YR 7/4; fabric 2.
4	1422	Bowl	052	Light red paste 2.5 YR 7/8; red slip int. and ext.; fabric 2.
5	7456	Bowl	175	Light red paste 10 R 6/6; fabric 1.
6	7453	Bowl	175	Light red paste 10 R 6/6; fabric 1.
7	7165	Bowl	165	Light reddish brown paste 2.5 YR 6/4; fabric 1.
8	11347	Bowl	011	Light red paste 10 R 6/6; fabric 2.
9	7756	Bowl	181	Light red paste 10 R 6/8; fabric 1.
10	2783	Bowl	076	Light red paste 2.5 YR 7/6; fabric 1.
11	1042	Bowl	043	Red paste 10 R 4/8; fabric 2.
12	7127	Bowl	165	Light red paste 10 R 6/6; fabric 1.
13	7446	Bowl	175	Pink paste 7.5 YR 8/4; fabric 2.

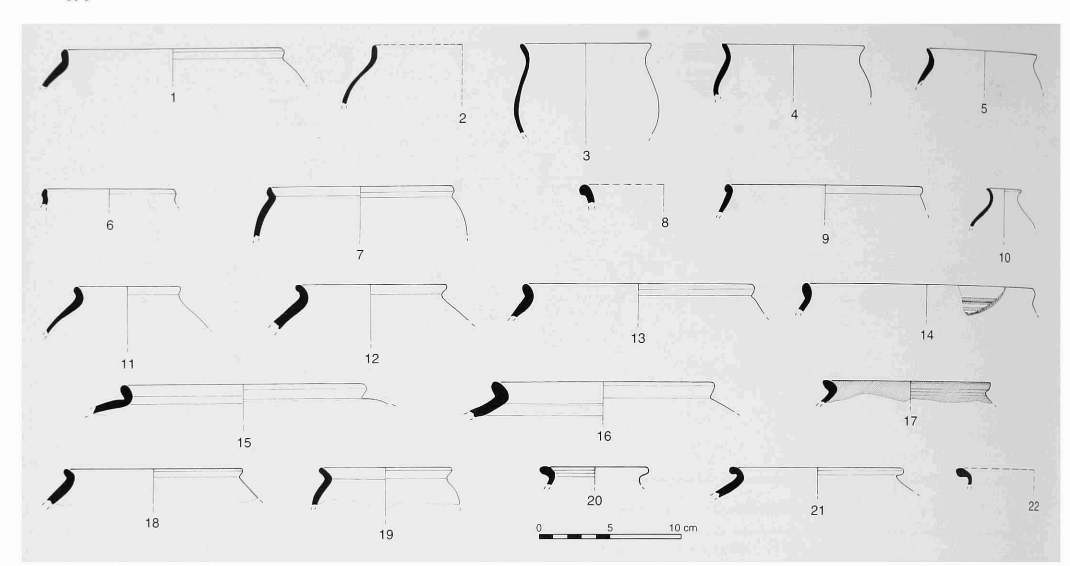


Plate 106.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	9471	Bowl	265	Light red paste 10 R 6/8; fabric 2.
2	7177	Bowl	165	Light red paste 2.5 YR 6/6; fabric 2.
3	9858	Bowl	287	Light red paste 2.5 YR 7/6; fabric 1.
4	9856	Bowl	287	Light reddish brown paste 2.5 YR 7/4; fabric 2.
5	9508	Bowl	276	Light red paste 10 R 6/8; fabric 1.
6	7713	Bowl	181	Light red paste 10 R 6/6; fabric 1.
7	7454 7455	Bowl	175	Pale red paste 10 R 6/4; fabric 1.
8	1456	Bowl	053	Light red paste 10 R 6/8; fabric 2.
9	1430	Bowl	052	Weak red paste 10 R 5/4; fabric 2.
10	648	Bowl	011	Light red paste 10 R 6/6; fabric 2.
11	647	Bowl	011	Light red paste 10 R 6/8; fabric 1.
12	1206	Bowl	047	Light red paste 10 R 6/6; fabric 2.
13	7721	Bowl	181	Light red paste 10 R 6/8; burnishing ext.; fabric 1.
14	7743	Bowl	181	Light red paste 10 R 6/6; red paint ext.; fabric 1.
15	627	Bowl	011	Light red paste 2.5 YR 6/6; fabric 2.
16	7140	Bowl	165	Light red paste 10 R 6/6; fabric 1.
17	1431	Bowl	052	Red paste 10 R 5/8; red slip int. and ext.; fabric 1.
18	1324	Bowl	052	Light reddish brown paste 2.5 YR 7/4; fabric 2.
19	11360	Bowl	008	Light red paste 2.5 YR 7/6; fabric 1.
20	1149	Bowl	045	Light red paste 10 R 6/8; fabric 1.
21	7750	Bowl	181	Light red paste 2.5 YR 7/6; fabric 1.
22	1248	Bowl	047	Red paste 10 R 5/8; burnished ext.; fabric 1.

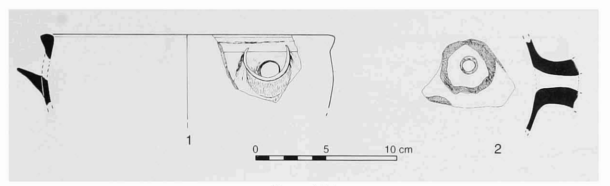


Plate 107.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	1216	Spouted bowl	047	Light red paste 10 R 6/6; fabric 2.
2	7445	Spouted bowl	175	Light red paste 10 R 6/8; fabric 2.

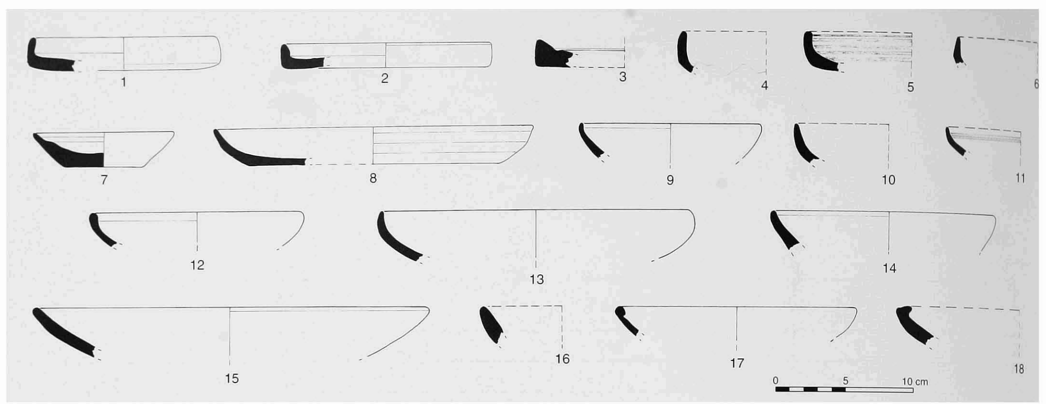


Plate 108.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	558	Tray	007	Light red paste 10 R 6/8; red-orange slip and burnished ext. and int.; fabric 1.
2	11289	Tray	011	Light red paste 10 R 6/8; fabric 2.
3	7845	Tray	181	Light red paste 2.5 YR 7/6; fabric 2.
4	615	Platter/bowl	008	Light red paste 10 R 5/1; fabric 1.
5	1290	Platter/bowl	052	Reddish grey paste 10 R 5/1; fabric 1.
6	1338	Platter/bowl	052	Light red paste 10 R 6/6; fabric 1.
7	7201	Platter/bowl	165	Light reddish brown paste 2.5 YR 7/4; fabric 2.
8	11373	Platter/bowl	007	Light reddish brown paste 2.5 YR 7/4; fabric 2.
9	2780	Platter/bowl	076	Light reddish brown paste 2.5 YR 7/4; fabric 1.
10	7451	Platter/bowl	175	Light red paste 10 R 6/8; fabric 1.
11	1171	Platter/bowl	046	Light red paste 2.5 YR 7/6; fabric 1.
12	3591	Platter/bowl	093	Light reddish brown paste 2.5 YR 7/4; fabric 1.
13	1178	Platter/bowl	046	Light red paste 2.5 YR 7/6; fabric 1.
14	7173	Platter/bowl	165	Light reddish brown paste 2.5 YR 7/4; fabric 2.
15	1224	Platter/bowl	047	Light red paste 2.5 YR 6/6; fabric 2.
16	7732	Platter/bowl	181	Light red paste 10 R 6/8; fabric 1.
17	15715	Platter/bowl	008	Light reddish brown paste 2.5 YR 7/4; fabric 2.
18	15716	Platter/bowl	008	Red paste 10 R 5/6; fabric 2.

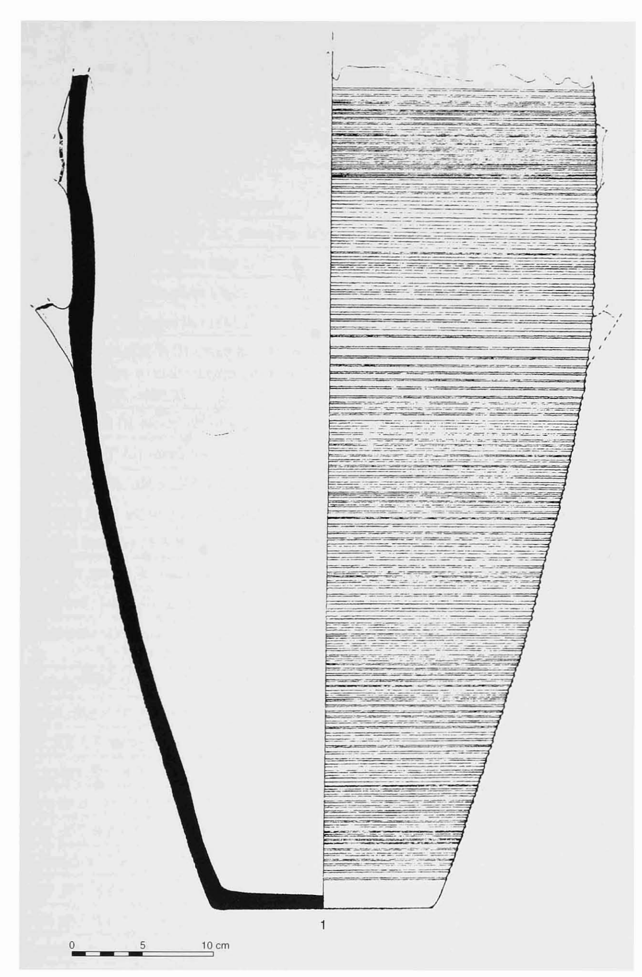


Plate 109.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	509	Jar	006	Red paste 10 R 5/8; height : 52 cm; width : 30.4 cm; thick. : 1.2 cm; horizontal combing; capacity: approximately 25 litres; fabric 1 (**photo 21**, p. 74).

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	1475	Jar / Jug	053	Light red paste 10 R 6/8; fabric 1.
2	4313	Jar / Jug	038	Pale red paste 10 R 6/4; horizontal red painted bands ext.; fabric 1.
3	1213	Jar / Jug	047	Light red paste 2.5 YR 7/6; vertical burnishing ext.; fabric 2.
4	2773	Jar / Jug	076	Light red paste 10 R 6/6; fabric 2.
5	933	Jar / Jug	043	Light red paste 10 R 6/6; fabric 1.
6	787	Jar / Jug	043	Light red paste 10 R 6/6; fabric 2.
7	17068	Jar / Jug	287	Weak red paste 10 R 5/2; vertical burnishing ext.; incised ridge at the intersection of neck and shoulder; broken piece on handle; fabric 1.
8	638	Jar / Jug	011	Light red paste 10 R 6/6; fabric 1.
9	7126	Jar / Jug	165	Light red paste 2.5 YR 7/6; fabric 2.
10	1347	Jar / Jug	052	Red paste 10 R 5/6; white slip int. and ext.; fabric 1.
11	1409	Jar / Jug	052	Reddish grey paste 10 R 5/1; fabric 1.
12	1393	Jar / Jug	052	Light red paste 10 R 6/6; vertical burnishing; fabric 1.
13	2609	Jar / Jug	082	Red paste 10 R 5/6; fabric 1.
14	3589	Jar / Jug	093	Dark reddish grey paste 10 R 4/1; burnished ext.; fabric 1.
15	17066	Jar / Jug	035	Light red paste 10 R 6/8; incisions on the intersection of neck and shoulder; fabric 1.
16	1532	Jar / Jug	043	Red paste 10 R 5/6; fabric 1.
17	1402	Jar / Jug	052	Light red paste 10 R 6/8; fabric 1.
18	7189	Jar / Jug	165	Light reddish brown paste 2.5 YR 7/4; fabric 1.
19	1360	Jar / Jug	052	Red paste 10 R 5/8; fabric 1.
20	1306	Jar / Jug	052	Reddish grey paste 10 R 5/1; incisions on handle; fabric 1.
21	9991	Jar / Jug	311	Light red paste 2.5 YR 7/8; fabric 2.
22	775	Jar / Jug	043	Red paste 10 R 5/6; fabric 1.
23	8039	Jar / Jug	209	Light red paste 2.5 YR 7/6; fabric 2.
24	7172	Jar / Jug	165	Light red paste 2.5 YR 7/6; fabric 2.
25	11296	Jar / Jug	008	Red paste 10 R 4/8; fabric 1.

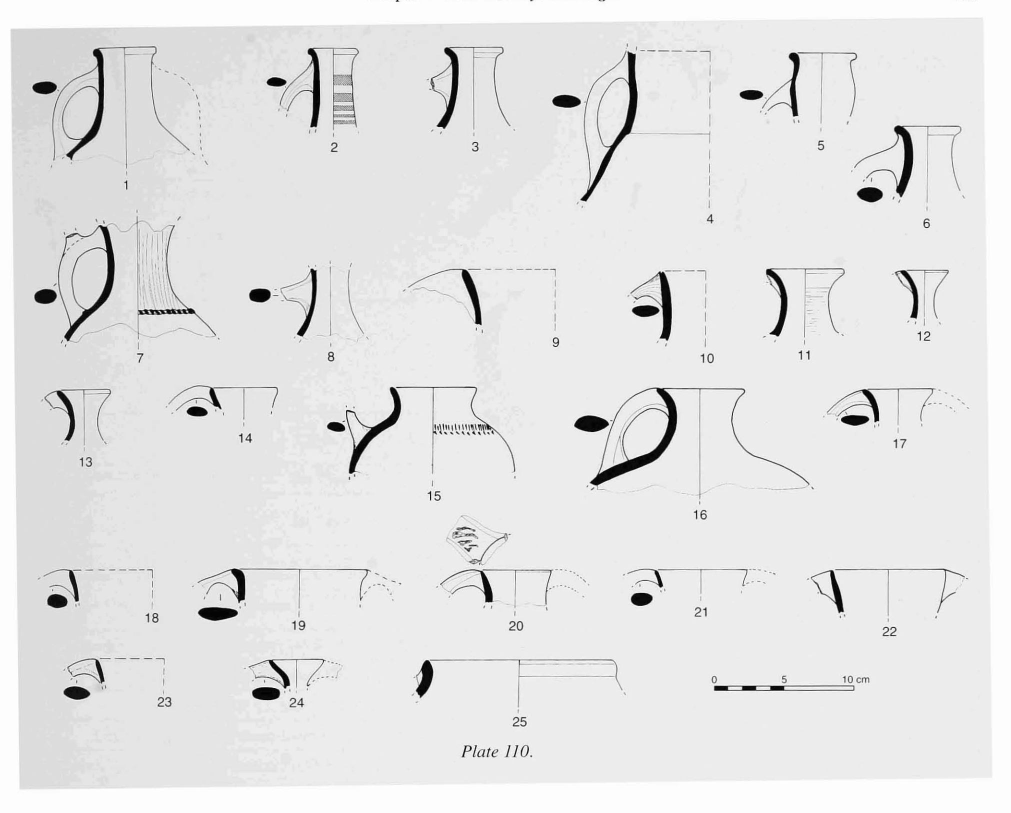


Plate 110.

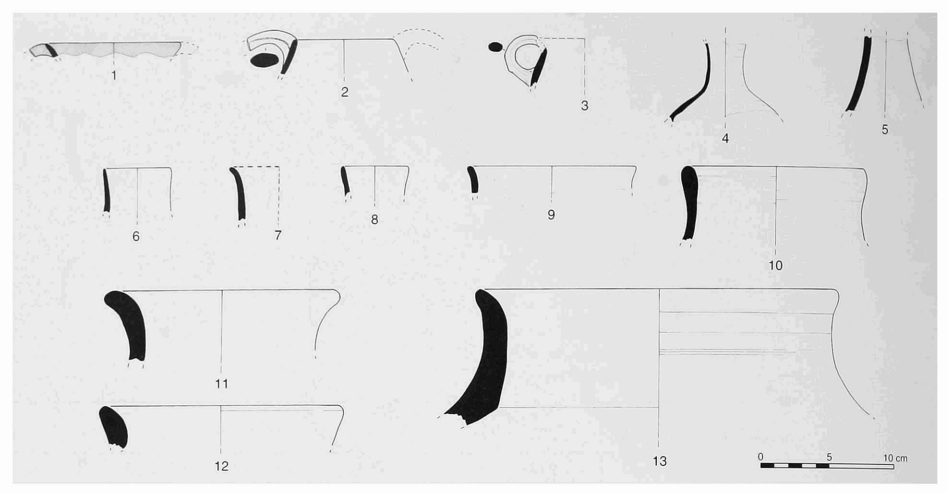


Plate 111.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	9367	Jar / Jug	276	Pale red paste 10 R 6/6; red slip int. and ext.; fabric 1.
2	1246	Jar / Jug	047	Pale red paste 2.5 YR 7/2; fabric 2.
3	4307	Jar / Jug	038	Light red paste 2.5 YR 7/6; fabric 2.
4	985	Jar / Jug	011	Light reddish brown paste 2.5 YR 7/3; fabric 2.
5	1372	Neck	072	Pale red paste 10 R 6/3; vertical burnishing ext.; fabric 2.
6	7441	Jar / Jug	175	Light red paste 10 R 6/6; fabric 1.
7	11338	Jar / Jug	007	Red paste 10 R 4/8; fabric 1.
8	9854	Jar / Jug	287	Weak red paste 10 R 5/4; fabric 1.
9	11365	Jar / Jug	008	Light red paste 2.5 YR 7/6; fabric 2.
10	1296	Jar / Jug	052	Light red paste 2.5 YR 7/6; fabric 2.
11	1361	Jar / Jug	052	Light red paste 10 R 6/8; fabric 2.
12	1479	Jar / Jug	053	Light reddish brown paste 2.5 YR 7/4; fabric 2.
13	11217 11214	Jar / Jug	218	Weak red paste 10 R 5/4; fabric 2.

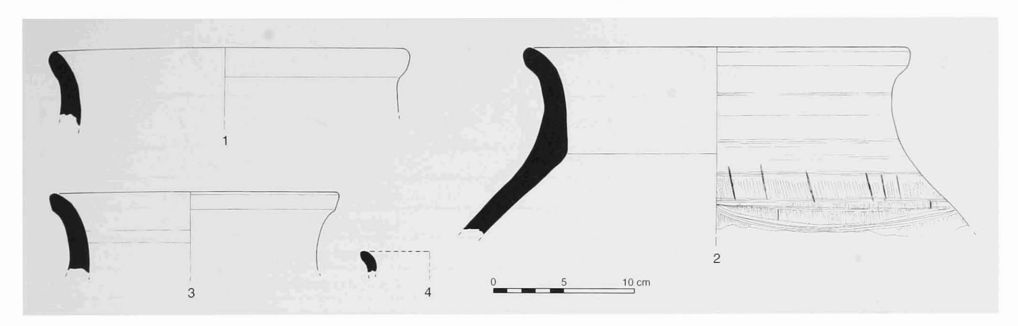


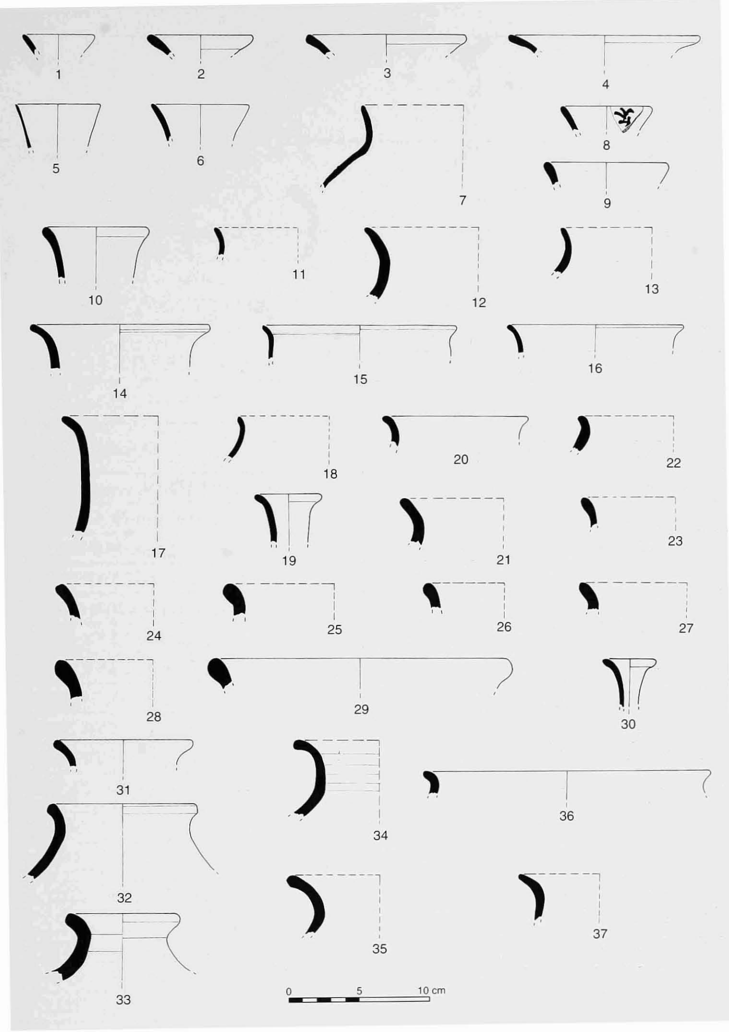
Plate 112.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	11234	Jar / Jug	218	Light red paste 10 R 6/8; fabric 2.
2	10907	Jar / Jug	218	Light red paste 2.5 YR 6/6; vertical combing and incisions ext.; fabric 2.
3	11210	Jar / Jug	218	Light reddish brown paste 2.5 YR 6/4; fabric 2.
4	9864	Jar / Jug	287	Light red paste 2.5 YR 7/6; fabric 2.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	10622	Jar / Jug	265	Red paste 10 R 5/8; fabric 1.
2	1273	Jar / Jug	048	Light red paste 10 R 6/8; fabric 1.
3	4308	Jar / Jug	038	Light red paste 10 R 6/8; fabric 2.
4	11405	Jar / Jug	008	Light red paste 10 R 6/6; fabric 1.
5	1161	Jar / Jug	046	Light red paste 10 R 6/6; fabric 1.
6	9868	Jar / Jug	287	Weak red paste 10 R 5/4; fabric 1.
7	1189	Jar / Jug	049	Light red paste 10 R 6/8; fabric 1.
8	10688	Jar / Jug	265	Red paste 10 R 5/8; black paint ext.; fabric 1.
9	1170	Jar / Jug	046	Red paste 10 R 5/8; fabric 1.
10	2614	Jar / Jug	082	Red paste 10 R 5/8; fabric 1.
11	9862	Jar / Jug	287	Light red paste 2.5 YR 7/6; fabric 1.
12	11302	Jar / Jug	008	Light red paste 2.5 YR 7/6; fabric 2.
13	11902	Jar / Jug	008	Weak red paste 10 R 5/4; fabric 2.
14	1162	Jar / Jug	046	Light reddish brown paste 2.5 YR 6/4; fabric 2.
15	1152	Jar / Jug	045	Red paste 10 R 5/8; fabric 1.
16	7191	Jar / Jug	165	Light red paste 2.5 YR 7/6; fabric 2.
17	4939	Jar / Jug	050	Light red paste 10 R 6/8; fabric 1.
18	9761	Jar / Jug	276	Light red paste 10 R 6/8; fabric 2.
19	2635 2605	Jar / Jug	082	Light red paste 10 R 6/6; fabric 1.
20	11220	Jar / Jug	218	Light red paste 2.5 YR 7/6; fabric 2.
21	7708	Jar / Jug	181	Weak red paste 10 R 5/4; fabric 1.
22	7711	Jar / Jug	181	Light red paste 10 R 6/8; fabric 1.
23	7759	Jar / Jug	181	Light red paste 10 R 6/8; fabric 1.
24	7717	Jar / Jug	175	Pale red paste 10 R 6/3; fabric 2.
25	7731	Jar / Jug	181	Light red paste 10 R 6/8; fabric 2.
26	2627	Jar / Jug	082	Pale red paste 10 R 6/4; fabric 2.
27	6995	Jar / Jug	156	Light red paste 10 R 6/6; fabric 2.
28	7443	Jar / Jug	175	Light red paste 10 R 6/8; fabric 1.
29	7427	Jar / Jug	175	Light red paste 10 R 6/8; fabric 2.
30	2625	Jug	082	Pale red paste 2.5 YR 6/2; fabric 2.
31	1463	Jar / Jug	053	Pale red paste 10 R 6/4; fabric 1.
32	2598	Jar / Jug	082	Weak red paste 10 R 5/2; fabric 2.
33	7115	Jar / Jug	165	Light red paste 10 R 6/8; fabric 1.
34	1238	Jar / Jug	047	Pale red paste 10 R 6/4; fabric 2.
35	7138	Jar / Jug	165	Reddish yellow paste 5 YR 7/6; fabric 2.
36	7001	Jar / Jug	156	Light red paste 10 R 6/8; fabric 2.
37	7157	Jar / Jug	165	Light reddish brown paste 2.5 YR 6/4; fabric 1.



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Plate 113.

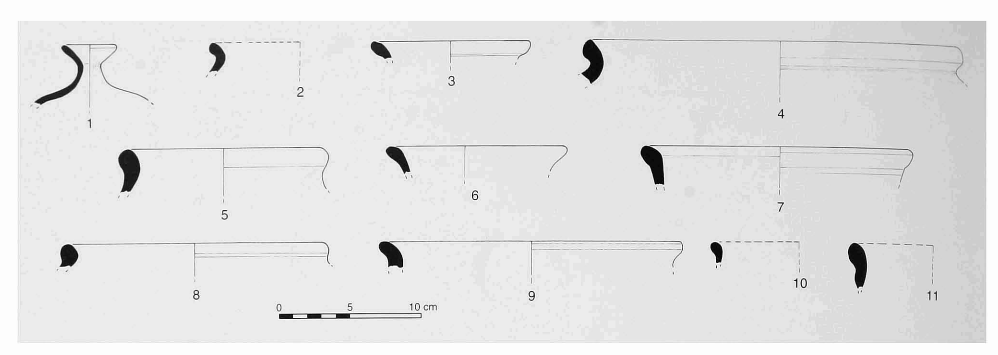
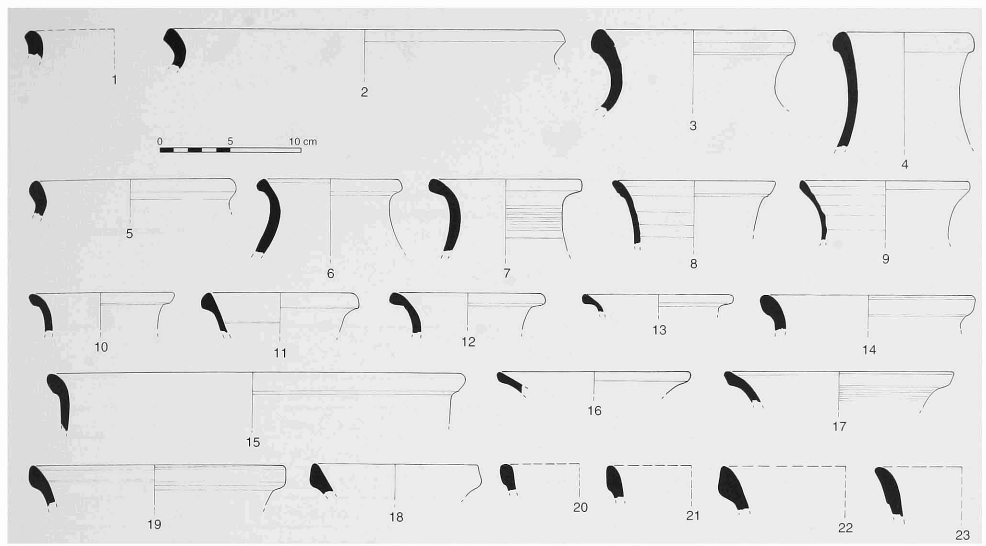


Plate 114.

STRATUM 6

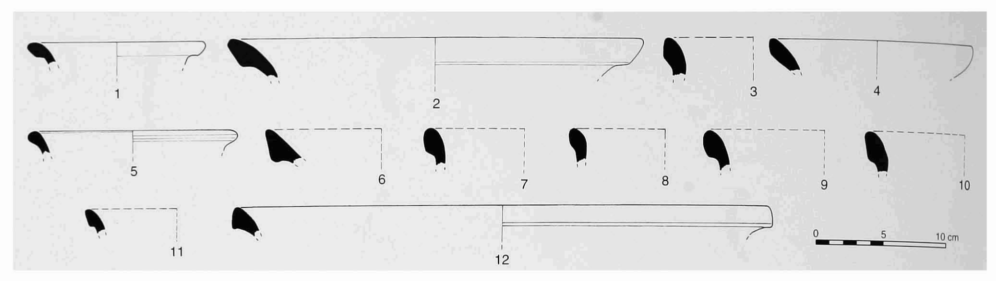
Number	Reg. Number	Object	Locus N°	Description
1	9465	Jug	265	Light red paste 2.5 YR 6/8; vertical burnishing ext.; fabric 2.
2	11209	Jar / Jug	218	Red paste 10 R 5/6; fabric 2.
3	1177	Jar / Jug	046	Light red paste 10 R 6/8; fabric 1.
4	618	Jar / Jug	008	Light red paste 2.5 YR 7/6; fabric 2.
5	1474	Jar / Jug	053	Light red paste 10 R 6/6; fabric 3.
6	9473	Jar / Jug	265	Light red paste 2.5 YR 6/6; fabric 1.
7	7129	Jar / Jug	165	Light red paste 2.5 YR 7/6; fabric 2.
8	1649	Jar / Jug	051	Pink paste 5 YR 7/4; fabric 2.
9	4943	Jar / Jug	050	Light red paste 2.5 YR 7/6; fabric 2.
10	10687	Jar / Jug	265	Light red paste 2.5 YR 6/6; fabric 1.
11	889	Jar / Jug	043	Light reddish brown paste 2.5 YR 7/4; fabric 2.



STRATUM 6

Plate 115.

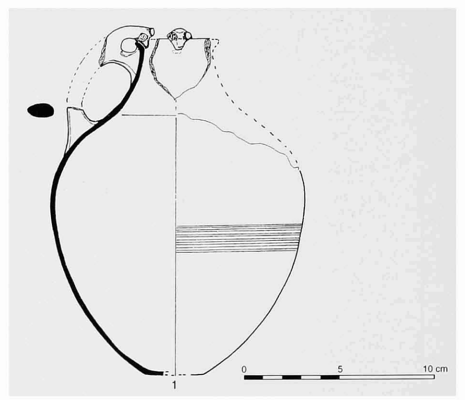
Number	Reg. Number	Object	Locus Nº	Description
1	7751	Jar / Jug	151	Red paste 10 R 5/6; fabric 3.
2	1300	Jar / Jug	052	Light red paste 10 R 6/6; fabric 2.
3	1210	Jar / Jug	047	Pale red paste 2.5 YR 6/2; fabric 2.
4	1377	Jar / Jug	052	Pinkish white paste 7.5 YR 8/2; fabric 2.
5	7448	Jar / Jug	175	Light red paste 10 R 6/6; fabric 1.
6	2599	Jar / Jug	082	Weak red paste 10 R 5/2; fabric 2.
7	1049	Jar / Jug	043	Red paste 10 R 4/6; fabric 1.
8	1254	Jar / Jug	047	Pale red paste 10 R 6/2; fabric 1.
9	1193	Jar / Jug	047	Pinkish grey paste 5 YR 6/2; fabric 1.
10	7735	Jar / Jug	181	Pale red paste 10 R 6/4; fabric 2.
11	1203	Jar / Jug	047	Light red paste 2.5 YR 7/6; fabric 2.
12	1327	Jar / Jug	052	Red paste 10 R 5/8; fabric 1.
13	1482	Jar / Jug	053	Light red paste 10 R 6/8; fabric 1.
14	2617	Jar / Jug	082	Reddish brown paste 2.5 YR 5/3; fabric 1.
15	7433	Jar / Jug	175	Light red paste 10 R 6/6; fabric 1.
16	1141	Jar / Jug	045	Light red paste 2.5 YR 7/6; fabric 1.
17	1279	Jar / Jug	050	Red paste 10 R 5/6; white paint ext. fabric 1.
18	7746	Jar / Jug	181	Light red paste 10 R 6/6; fabric 2.
19	1515	Jar / Jug	053	Red paste 10 R 5/6; fabric 1.
20	1168	Jar / Jug	046	Light red paste 10 R 6/6; fabric 1.
21	1186	Jar / Jug	046	Pink paste 5 YR 7/4; fabric 2.
22	6993	Jar / Jug	156	Light red paste 10 R 6/8; fabric 1.
23	1458	Jar / Jug	053	Red paste 10 R 5/8; fabric 2.



STRATUM 6

Plate 116.

Number	Reg. Number	Object	Locus N°	Description
1	1381	Jar / Jug	052	Red paste 10 R 5/8; fabric 1.
2	7131	Jar / Jug	165	Light red paste 2.5 YR 7/6; fabric 2.
3	893	Jar / Jug	043	Red paste 10 R 5/8; fabric 2.
4	7160	Jar / Jug	165	Light red paste 10 R 6/6; fabric 2.
5	1648	Jar / Jug	051	Red paste 10 R 5/8; fabric 1.
6	7112	Jar / Jug	165	Light red paste 10 R 6/8; fabric 1.
7	7734	Jar / Jug	181	Light red paste 10 R 6/6; fabric 2.
8	17056	Jar / Jug	181	Weak red paste 10 R 5/4; fabric 3.
9	7740	Jar / Jug	181	Light red paste 10 R 6/8; fabric 2.
10	7444	Jar / Jug	175	Light reddish brown paste 2.5 YR 7/4; fabric 2.
11	7460	Jar / Jug	175	Light red paste 10 R 6/6; fabric 2.
12	2613	Jar / Jug	082	Light red paste 10 R 6/6; fabric 1.



STRATUM 6

Plate 117.

Number	Reg. Number	Object	Locus N°	Description
1	1508	Jug with a handle surmounted by the head of a quadruped	007	Red paste 10 R 5/8; height: 17.5 cm; width: 12.5 cm; width of base: 3 cm; width of neck: 3.4 cm; thick.: 0.5 cm; fabric 1 (**photo 19-20**, p. 73).

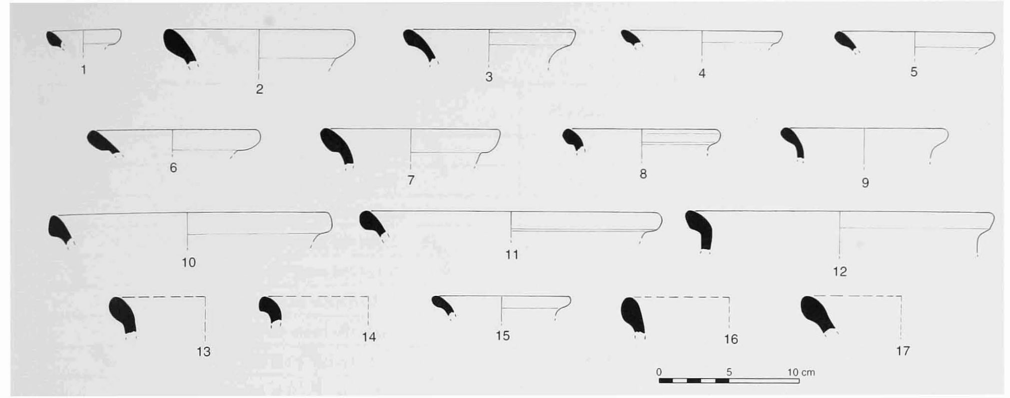


Plate 118.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	7714	Jar / Jug	181	Red paste 10 R 5/8; fabric 1.
2	7697	Jar / Jug	181	Light reddish brown paste 2.5 YR 7/4; fabric 2.
3	1222	Jar / Jug	047	Pale red paste 10 R 6/4; fabric 1.
4	7754	Jar / Jug	181	Light reddish brown paste 2.5 YR 7/4; fabric 2.
5	7709	Jar / Jug	181	Light red paste 10 R 6/8; fabric 2.
6	7136	Jar / Jug	165	Light red paste 10 R 6/8; fabric 2.
7	7693	Jar / Jug	181	Light red paste 10 R 6/8; fabric 2.
8	2782	Jar / Jug	076	Light red paste 2.5 YR 6/6; fabric 2.
9	11374	Jar / Jug	011	Light red paste 10 R 6/8; fabric 1.
10	7141	Jar / Jug	165	Pale red paste 10 R 6/4; fabric 1.
11	7175	Jar / Jug	165	Reddish yellow paste 5 YR 7/6; fabric 2.
12	7431	Jar / Jug	175	Light red paste 10 R 6/6; fabric 2.
13	1333	Jar / Jug	052	Red paste 10 R 5/6; black smokened rim; fabric 3.
14	7180	Jar / Jug	165	Light reddish brown paste 2.5 YR 6/3; fabric 2.
15	1490	Jar / Jug	053	Light red paste 2.5 YR 6/8; fabric 2.
16	915	Jar / Jug	043	Red paste 10 R 5/8; fabric 1.
17	7188	Jar / Jug	165	Pink paste 5 YR 7/4; fabric 2.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	1461	Jar / Jug	053	Light red paste 2.5 YR 6/8; fabric 2.
2	653	Jar / Jug	008	Weak red paste 10 R 5/4; fabric 1.
3	11375	Jar / Jug	011	Light red paste 2.5 YR 6/6; fabric 1.
4	7414	Jar / Jug	175	Light red paste 10 R 6/6; fabric 1.
5	7710	Jar / Jug	181	Light red paste 10 R 6/6; fabric 1.
6	11330	Jar / Jug	007	Red paste10 R 4/8; fabric 2.
7	9865	Jar / Jug	287	Light red paste 10 R 6/8; fabric 1.
8	2615	Jar / Jug	082	Red paste 10 R 6/8; fabric 2.
9	11339	Jar / Jug	007	Red paste 10 R 4/8; fabric 1.
10	7134	Jar / Jug	165	Light red paste 2.5 YR 7/6; fabric 2.
11	1218	Jar / Jug	047	Pale red paste 10 R 6/4; fabric 2.
12	6989	Jar / Jug	156	Light red paste 10 R 6/6; fabric 3.
13	7142	Jar / Jug	165	Light red paste 2.5 YR 7/6; fabric 1.
14	7727	Jar / Jug	181	Weak red paste 10 R 5/4; fabric 3.
15	7458	Jar / Jug	175	Light red paste 2.5 YR 7/6; fabric 2.
16	7412	Jar / Jug	175	Reddish grey paste 2.5 YR 6/1; fabric 1.
17	7742	Jar / Jug	181	Weak red paste 10 R 5/4; incisions ext.; fabric 2.
18	953	Jar / Jug	043	Light red paste 10 R 6/6; smoke-blackened rim; fabric 2.
19	7171	Jar / Jug	165	Light red paste 2.5 YR 7/6; fabric 2.
20	1452	Jar / Jug	053	Light red paste 2.5 YR 6/8; fabric 1.
21	10679	Jar / Jug	265	Red paste 10 R 5/8; fabric 2.
22	1121	Jar / Jug	045	Reddish grey paste 2.5 YR 6/1; fabric 2.
23	2620	Jar / Jug	082	Light reddish brown 2.5 YR 7/4; fabric 2.
24	11376	Jar / Jug	008	Weak red paste 10 R 5/4; fabric 1.
25	15713	Jar / Jug	053	Light red paste 10 R 6/8; fabric 2.
26	1493	Jar / Jug	053	Light red paste 2.5 YR 7/8; fabric 1.
27	7179	Jar / Jug	165	Light red paste 2.5 YR 7/6; fabric 2.
28	7422	Jar / Jug	175	Reddish grey paste 10 R 5/1; fabric 2.
29	2622	Jar / Jug	082	Pale red paste 10 R 6/3; fabric 3.

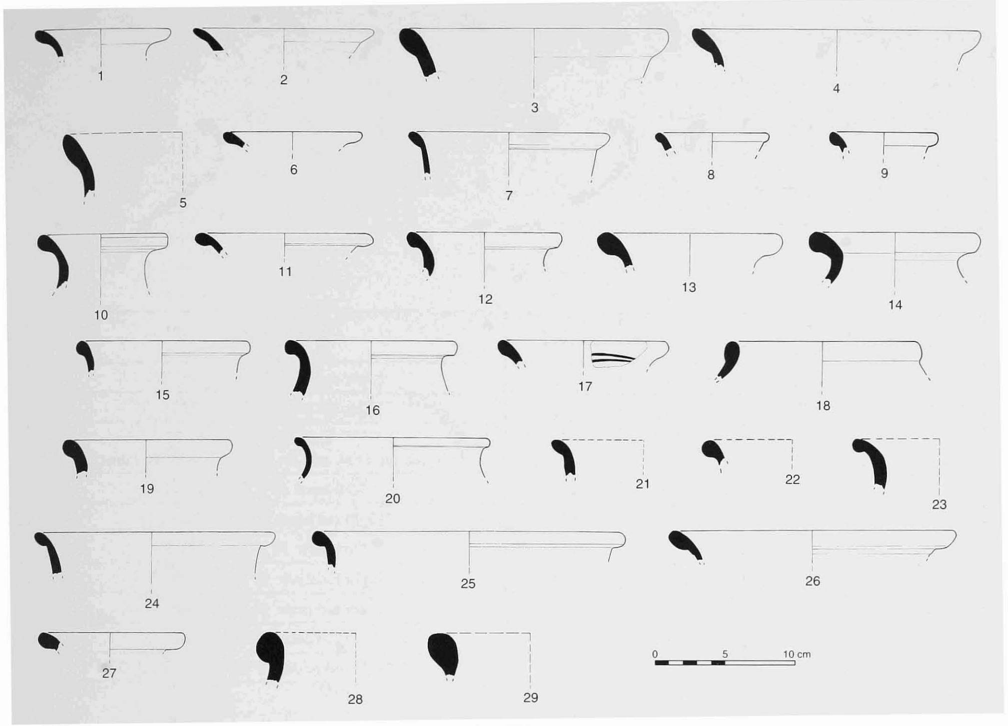

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Plate 119a.

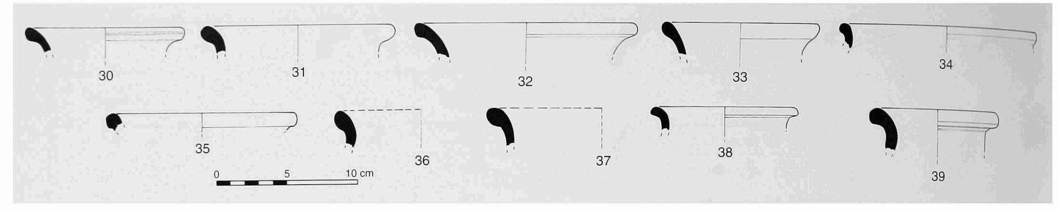
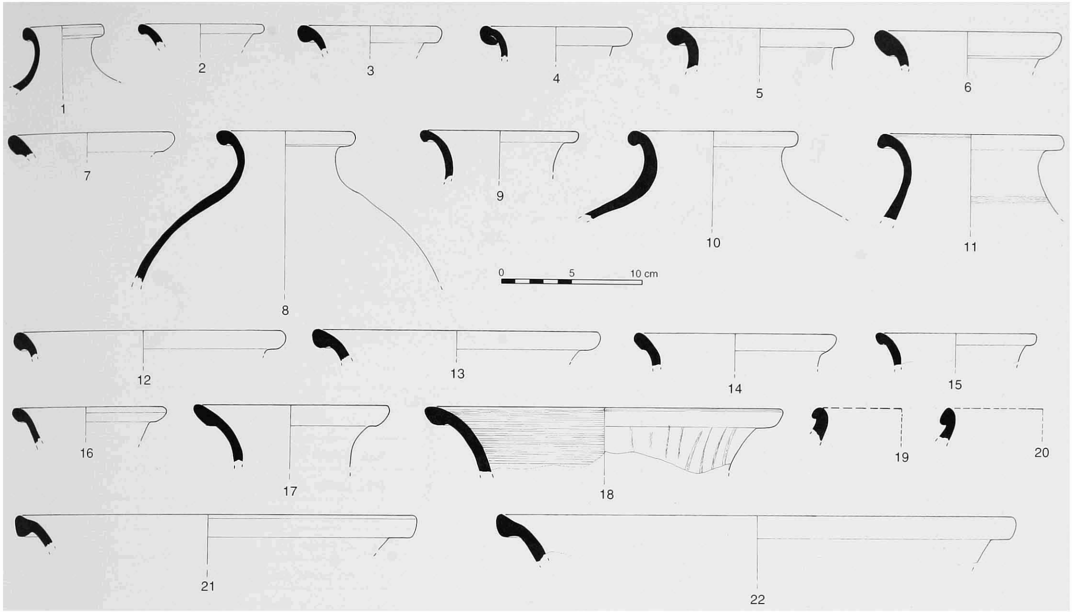


Plate 119b.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
30	1481	Jar / Jug	053	Light red paste 10 R 5/6; fabric 1.
31	7185	Jar / Jug	165	Light red paste 10 R 6/8; fabric 2.
32	7429	Jar / Jug	175	Red paste 10 R 5/6; black paint ext. and int. in poor condition; fabric 1.
33	1143	Jar / Jug	045	Red paste 10 R 5/8; fabric 1.
34	1366	Jar / Jug	052	Light red paste 10 R 6/8; fabric 1.
35	2792	Jar / Jug	076	Red paste 10 R 5/6; fabric 2.
36	7442	Jar / Jug	175	Light red paste 10 R 6/6; fabric 1.
37	7186	Jar / Jug	165	Light red paste 10 R 6/8; fabric 1.
38	2602	Jar / Jug	082	Light red paste 10 R 6/6; fabric 1.
39	7170	Jar / Jug	165	Light red paste 2.5 YR 7/6; fabric 2.



STRATUM 6

Plate 120a.

Number	Reg. Number	Object	Locus N°	Description
1	7116	Jar / Jug	165	Pink paste 5 YR 7/4; fabric 2.
2	7288	Jar / Jug	165	Light red paste 10 R 6/8; fabric 2.
3	7452	Jar / Jug	175	Light red paste 10 R 6/8; fabric 2.
4	6996	Jar / Jug	156	Pale red paste 10 R 6/3; fabric 2.
5	6926	Jar / Jug	156	Light red paste 10 R 6/8; fabric 2.
6	7725	Jar / Jug	181	Light red paste 10 R 6/8; fabric 2.
7	7155	Jar / Jug	165	Light red paste 2.5 YR 7/6; fabric 1.
8	9982	Jar / Jug	311	Light red paste 10 R 6/8; fabric 2.
9	1343	Jar / Jug	052	Light red paste 10 R 6/8; fabric 2.
10	11251	Jar / Jug	218	Light reddish brown paste 2.5 YR 6/4; fabric 2.
11	11345	Jar / Jug	011	Light red paste 10 R 6/6; fabric 1.
12	6992	Jar / Jug	156	Light red paste 10 R 6/8; fabric 2.
13	7167	Jar / Jug	165	Reddish yellow paste 5 YR 7/6; fabric 2.
14	7166	Jar / Jug	165	Light red paste 2.5 YR 6/6; fabric 2.
15	1301	Jar / Jug	052	Light red paste 10 R 6/8; fabric 2.
16	1356	Jar / Jug	052	Red paste 10 R 5/8; fabric 1.
17	1132	Jar / Jug	045	Red paste 10 R 4/8; fabric 1.
18	1517-1468	Jar / Jug	053	Red paste 10 R 5/6; vertical black paint ext.; fabric 1.
19	1190	Jar / Jug	049	Light red paste 10 R 6/6; fabric 2.
20	9769	Jar / Jug	276	Light reddish brown paste 2.5 YR 6/4; fabric 2.
21	1159	Jar / Jug	046	Light red paste 10 R 6/8; fabric 1.
22	11377	Jar / Jug	011	Red paste 10 R 5/6; fabric 2.

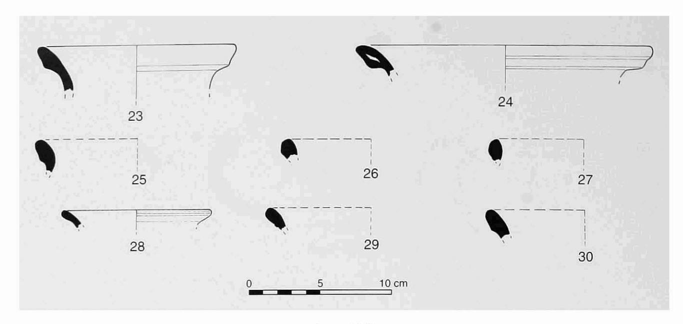
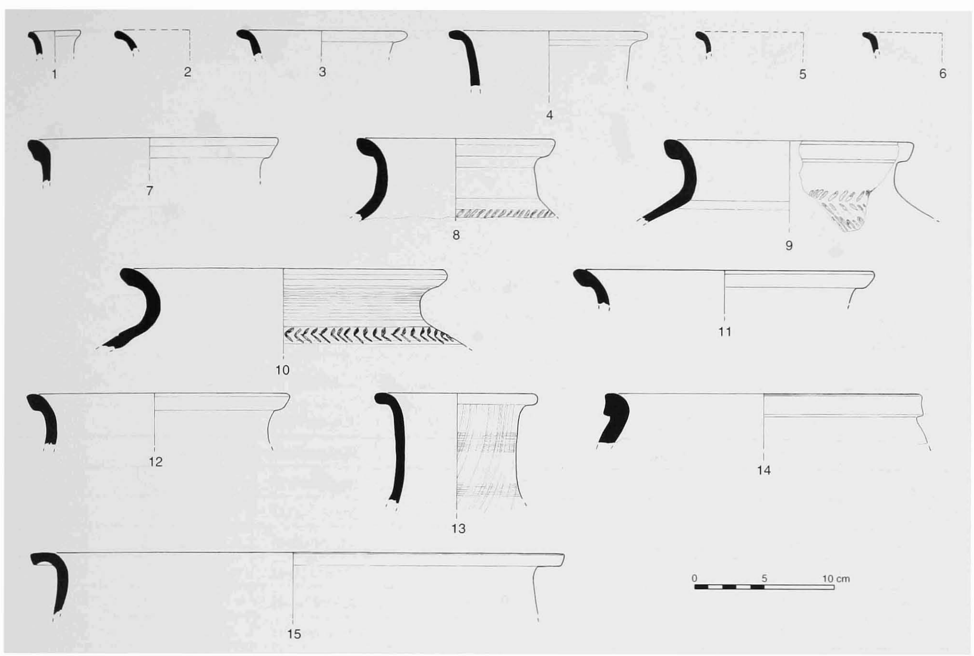


Plate 120b.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
23	1047	Jar / Jug	043	Red paste 10 R 4/6; fabric 1.
24	1140	Jar / Jug	045	Red paste 10 R 4/8; fabric 1.
25	7449	Jar / Jug	175	Light red paste 10 R 6/6; fabric 1.
26	7122	Jar / Jug	165	Pale red paste 10 R 6/6; fabric 3.
27	7716	Jar / Jug	181	Light red paste 10 R 6/8; fabric 2.
28	1459	Jar / Jug	053	Pale red paste 10 R 6/4; fabric 1.
29	7747	Jar / Jug	181	Light red paste 10 R 6/8; fabric 2.
30	7706	Jar / Jug	181	Red paste 10 R 5/6; fabric 1.



STRATUM 6

Plate 121.

Number	Reg. Number	Object	Locus N°	Description
1	1465	Jug	053	Light red paste 2.5 YR 6/8; fabric 2.
2	7755	Jar / Jug	181	Light red paste 10 R 6/8; fabric 1.
3	11378	Jar / Jug	011	Light red paste 10 R 6/6; fabric 2.
4	11379	Jar / Jug	011	Pale red paste 10 R 6/4; fabric 1.
5	10680	Jar / Jug	265	Light red paste 2.5 YR 6/8; fabric 2.
6	9873	Jar / Jug	287	Light red paste 10 R 6/8; fabric 2.
7	7698	Jar / Jug	181	Light red paste 10 R 6/6; fabric 2.
8	2774	Jar / Jug	076	Light red paste 2.5 YR 7/6; diagonal incisions at junction of neck and body; fabric 2.
9	2594	Jar / Jug	082	Pale red paste 10 R 6/4; herringbone incisions at junction of neck and body; fabric 1.
10	7121	Jar / Jug	165	Light red paste 2.5 YR 7/6; herringbone incisions at junction of neck and body; fabric 2.
11	2621	Jar / Jug	082	Light red paste 2.5 YR 7/6; fabric 2.
12	2776	Jar / Jug	076	Light red paste 2.5 YR 7/6; fabric 2.
13	1298	Jar / Jug	052	Red paste 10 R 5/6; diagonal and horizontal combing ext.; fabric 1.
14	617	Jar / Jug	008	Pale red paste 10 R 6/6; fabric 2.
15	1208	Jar / Jug	047	Red paste 10 R 4/6; fabric 3.

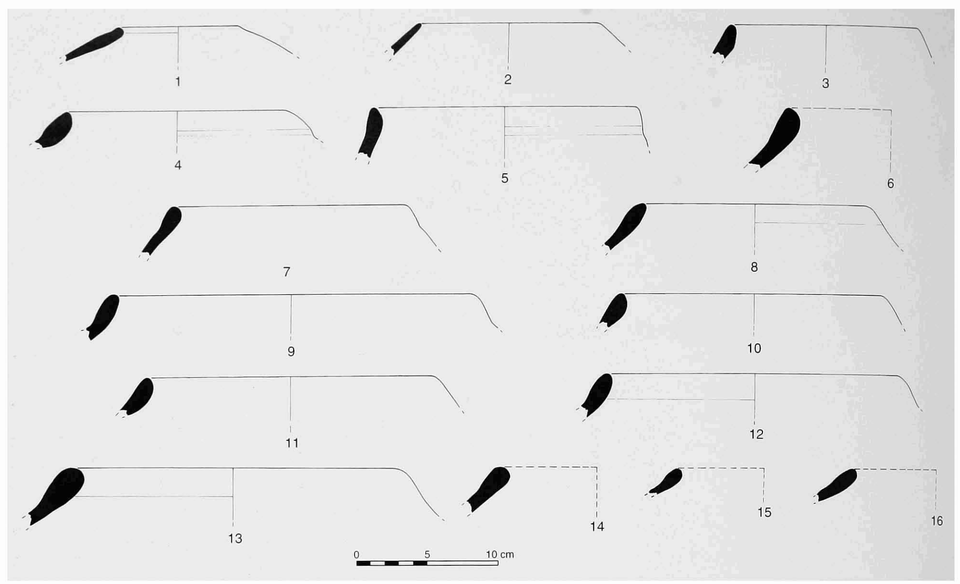


Plate 122.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	11290	Hole-mouth	011	Red paste 10 R 5/6; fabric 1.
2	11322	Hole-mouth	011	Light red paste 2.5 YR 6/6; fabric 2.
3	9754	Hole-mouth	276	Pale red paste 10 R 6/4; smoke-blackened rim; fabric 2.
4	1485	Hole-mouth	053	Weak red paste 10 R 5/4; fabric 3.
5	1280	Hole-mouth	050	Pale red paste 2.5 YR 7/2; fabric 2.
6	6973	Hole-mouth	156	Light red paste 10 R 6/6; fabric 2.
7	11216	Hole-mouth	218	Light reddish brown paste 5 YR 6/4; fabric 2.
8	7137	Hole-mouth	165	Light reddish brown paste 2.5 YR 7/4; fabric 2.
9	9496	Hole-mouth	276	Light reddish brown paste 2.5 YR 6/4; fabric 2.
10	7702	Hole-mouth	181	Light reddish brown paste 10 R 7/6; fabric 2.
11	11219	Hole-mouth	218	Pink paste 5 YR 7/4; smoke-blackened rim; fabric 2.
12	9495	Hole-mouth	276	Light reddish brown paste 2.5 YR 6/4; fabric 2.
13	6972	Hole-mouth	156	Light reddish brown paste 2.5 YR 7/4; fabric 3.
14	7705	Hole-mouth	181	Pale red paste 10 R 6/4; smoke-blackened rim; fabric 2.
15	11306	Hole-mouth	008	Red paste 10 R 4/8; fabric 1.
16	7423	Hole-mouth	175	Pale red paste 10 R 6/2; fabric 2.

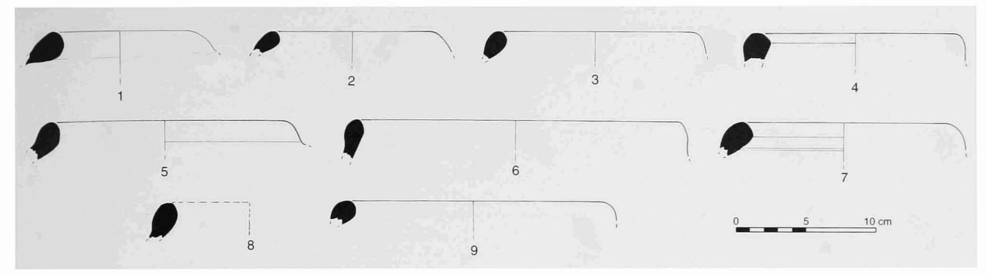


Plate 123.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	532	Hole-mouth	006	Light grey paste 5 YR 7/1; fabric 2.
2	7741	Hole-mouth	181	Pink paste 5 YR 7/4; fabric 2.
3	7174	Hole-mouth	165	Light red paste 2.5 YR 7/6; fabric 2.
4	1194	Hole-mouth	047	Light grey paste 5 YR 7/1; fabric 2.
5	1650	Hole-mouth	051	Reddish grey paste 10 R 6/1; fabric 2.
6	11226	Hole-mouth	218	Weak red paste 10 R 5/4; fabric 2.
7	7178	Hole-mouth	165	Light red paste 10 R 6/6; fabric 1.
8	10678	Hole-mouth	265	Light red paste 2.5 YR 6/6; fabric 2.
9	7437	Hole-mouth	175	Light reddish brown paste 2.5 YR 7/4; fabric 2.

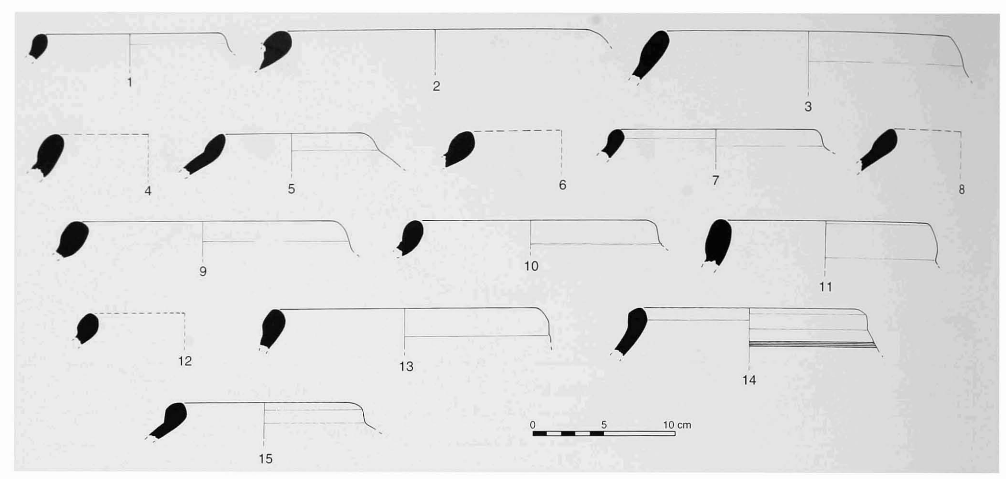


Plate 124.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	1454	Hole-mouth	053	Light reddish brown paste 2.5 YR 7/4; fabric 2.
2	7430	Hole-mouth	175	Pale red paste 10 R 6/3; fabric 2.
3	7135	Hole-mouth	165	Pink paste 5 YR 7/4; fabric 2.
4	7440	Hole-mouth	175	Pale red paste 10 R 6/3; fabric 2.
5	7428	Hole-mouth	175	Pinkish grey paste 5 YR 7/2; fabric 2.
6	7164	Hole-mouth	165	Pink paste 5 YR 7/4; fabric 2.
7	2601	Hole-mouth	082	Red paste 10 R 5/8; fabric 2.
8	7133	Hole-mouth	165	Pink paste 5 YR 7/4; fabric 2.
9	7420	Hole-mouth	175	Light red paste 10 R 6/4; smoke-blackened rim; fabric 2.
10	2791	Hole-mouth	076	Light reddish brown paste 2.5 YR 7/4; ridge around the neck; fabric 2.
11	1310	Hole-mouth	052	Light red paste 10 R 6/6; smoke-blackened rim; fabric 3.
12	7733	Hole-mouth	181	Light red paste 10 R 6/8; red slip ext.; fabric 1.
13	7130	Hole-mouth	165	Pinkish grey 5 YR 7/2; fabric 2.
14	15723	Hole-mouth	008	Light reddish brown paste 2.5 YR 7/4; horizontal incisions ext.; fabric 2.
15	1432	Hole-mouth	052	Light red paste 10 R 6/6; fabric 3.

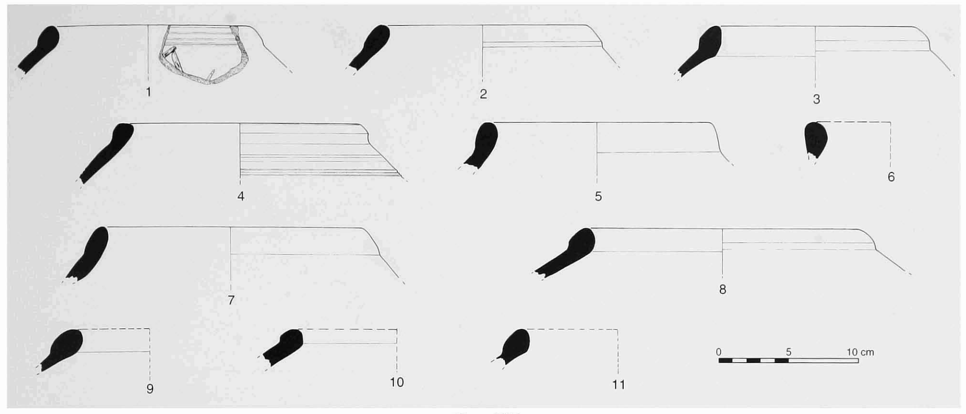


Plate 125.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	7120	Hole-mouth	165	Pink paste 5 YR 7/4; incisions ext.; fabric 2.
2	7156	Hole-mouth	165	Light red paste 2.5 YR 7/6; fabric 2.
3	7438	Hole-mouth	175	Pale red paste 10 R 6/4; fabric 2.
4	7143	Hole-mouth	165	Reddish grey paste 2.5 YR 6/1; combing ext.; fabric 2.
5	7150	Hole-mouth	165	Light red paste 2.5 YR 7/6; smoke-blackened rim; fabric 2.
6	2603	Hole-mouth	082	Light reddish grey paste 2.5 YR 7/1; fabric 2.
7	7419	Hole-mouth	175	Light red paste 2.5 YR 7/6; fabric 2.
8	7407	Hole-mouth	175	Light reddish brown paste 2.5 YR 7/4; fabric 2.
9	7152	Hole-mouth	165	Pink paste 5 YR 7/4; fabric 2.
10	7726	Hole-mouth	181	Light reddish brown paste 2.5 YR 7/3; fabric 2.
11	7169	Hole-mouth	165	Light red paste 2.5 YR 7/6; fabric 2.

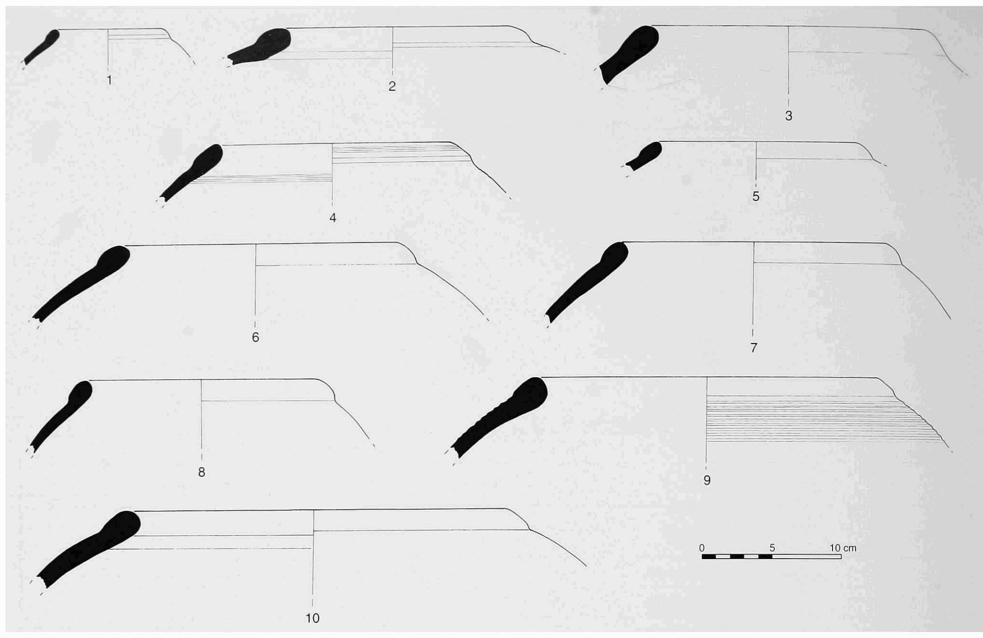


Plate 126a.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	1146	Hole-mouth	045	Light reddish brown paste 2.5 YR 7/3; fabric 2.
2	7692	Hole-mouth	181	Pale red paste 10 R 6/4; fabric 2.
3	515	Hole-mouth	006	Light reddish brown paste 2.5 YR 7/3; fabric 2.
4	11343	Hole-mouth	011	Light red paste 2.5 YR 7/6; combing ext.; fabric 2.
5	1142	Hole-mouth	045	Red paste 10 R 4/8; fabric 2.
6	2769	Hole-mouth	076	Pale red paste 2.5 YR 7/2; fabric 2.
7	1147	Hole-mouth	045	Light red paste 10 R 6/6; smoke-blackened rim; fabric 2.
8	1139	Hole-mouth	045	Pink paste 5 YR 7/3; smoke-blackened rim; fabric 2.
9	11342	Hole-mouth	011	Light red paste 2.5 YR 7/6; combing ext.; fabric 2.
10	1114	Hole-mouth	045	Light red paste 2.5 YR 7/6; fabric 2.

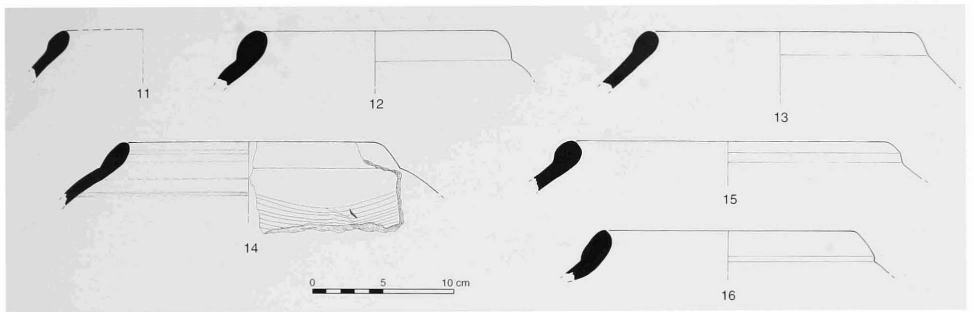


Plate 126b.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
11	7146	Hole-mouth	165	Light red paste 2.5 YR 7/6; fabric 2.
12	7114	Hole-mouth	165	Pink paste 5 YR 7/4; fabric 2.
13	1477	Hole-mouth	053	Reddish grey paste 10 R 5/2; fabric 1.
14	8195	Hole-mouth	210	Reddish grey paste 2.5 YR 5/1; combing ext.; fabric 1.
15	7411	Hole-mouth	175	Light reddish brown paste 2.5 YR 7/3; smoke-blackened rim; fabric 2.
16	921	Hole-mouth	043	Reddish grey paste 10 R 6/1; fabric 2.

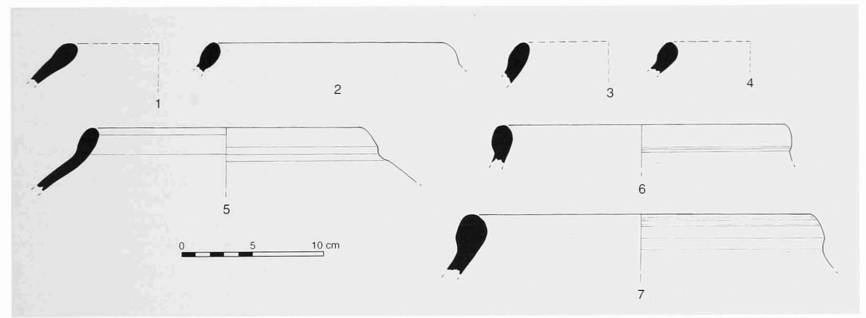


Plate 127.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	7151	Hole-mouth	165	Pink paste 5 YR 7/4; fabric 2.
2	11235	Hole-mouth	218	Weak red paste 10 R 5/4; fabric 2.
3	10675	Hole-mouth	265	Weak red paste 10 R 4/3; fabric 2.
4	10683	Hole-mouth	265	Light red paste 2.5 YR 6/8; fabric 2.
5	9472	Hole-mouth	265	Reddish yellow paste 5 YR 7/6; fabric 2.
6	9867	Hole-mouth	287	Pale red paste 10 R 6/4; fabric 1.
7	1172	Hole-mouth	046	Pale red paste 10 R 6/2; fabric 2.

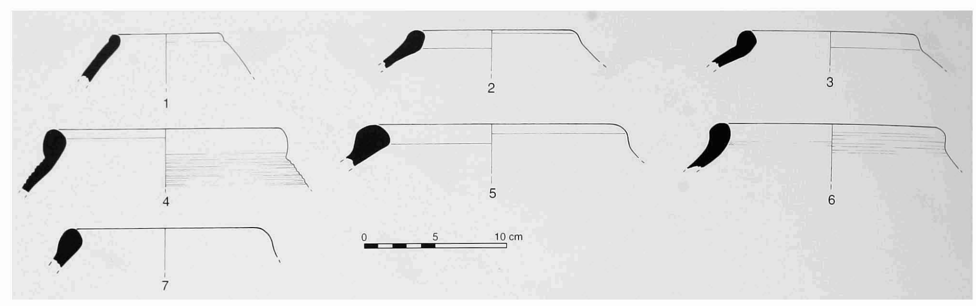


Plate 128.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	11380	Hole-mouth	008	Light reddish brown paste 2.5 YR 7/4; fabric 2.
2	1115	Hole-mouth	045	Light reddish brown paste 2.5 YR 7/4; smoke-blackened rim; fabric 2.
3	1129	Hole-mouth	045	Light red paste 2.5 YR 7/6; fabric 2.
4	1373	Hole-mouth	052	Light red paste 10 R 6/6; horizontal combing ext.; fabric 2.
5	1229	Hole-mouth	047	Reddish grey paste 10 R 6/1; fabric 2.
6	1183	Hole-mouth	046	Light red paste 2.5 YR 7/6; fabric 2.
7	1258	Hole-mouth	048	Light reddish brown paste 2.5 YR 7/3; fabric 2.

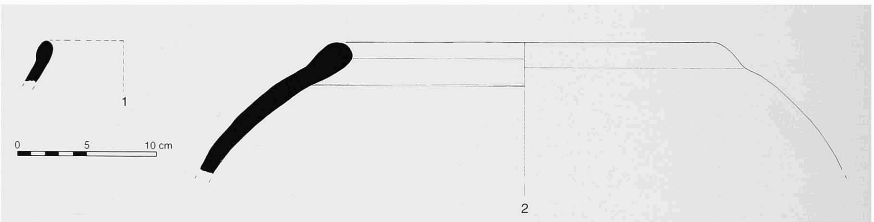


Plate 129.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	9871	Hole-mouth	287	Light reddish brown paste 2.5 YR 7/4; fabric 2.
2	535 546	Hole-mouth	006	Light reddish brown paste 2.5 YR 7/4; fabric 3.

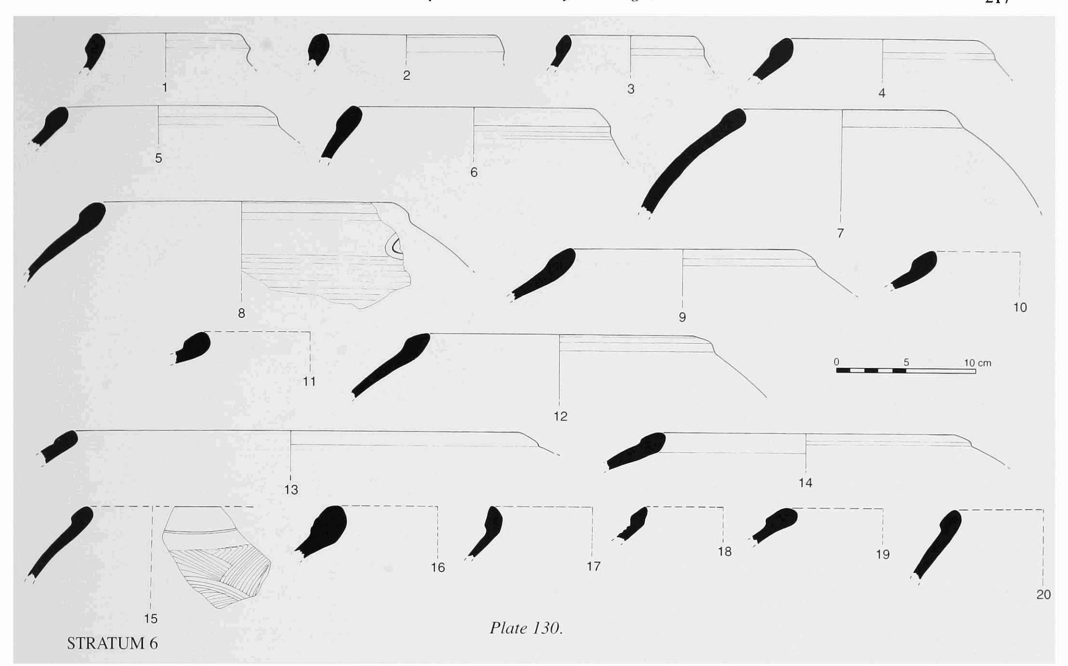


Plate 130.

Number	Reg. Number	Object	Locus N°	Description
1	7730	Hole-mouth	181	Pale red paste 10 R 6/4; fabric 2.
2	7712	Hole-mouth	181	Light red paste 2.5 YR 7/6; fabric 2.
3	7715	Hole-mouth	181	Light reddish brown paste 2.5 YR 7/3; fabric 2.
4	7139	Hole-mouth	165	Light red paste 2.5 YR 7/6; fabric 2.
5	7417	Hole-mouth	175	Pale red paste 10 R 6/4; fabric 3.
6	7145	Hole-mouth	165	Pink paste 5 YR 7/3; fabric 2.
7	2770	Hole-mouth	076	Pale red paste 2.5 YR 7/2; fabric 2.
8	11213	Hole-mouth	218	Reddish grey paste 10 R 6/1; horizontal combing ext.; fabric 2.
9	11237	Hole-mouth	165	Light reddish brown paste 2.5 YR 6/4; fabric 2.
10	7154	Hole-mouth	165	Light reddish brown paste 2.5 YR 7/4; smoke-blackened rim; fabric 2.
11	6988	Hole-mouth	156	Pale red paste 10 R 6/3; fabric 2.
12	7119	Hole-mouth	165	Reddish yellow paste 5 YR 7/6; fabric 2.
13	6998	Hole-mouth	156	Light red paste 2.5 YR 7/6; fabric 2.
14	7408	Hole-mouth	175	Light red paste 10 R 6/4; fabric 2.
15	1117-1130	Hole-mouth	045	Pale red paste 10 R 6/4; pattern combing ext.; fabric 2.
16	7149	Hole-mouth	165	Pinkish grey paste 5 YR 7/2; fabric 2.
17	7699	Hole-mouth	181	Light red paste 10 R 6/6; fabric 2.
18	901	Hole-mouth	043	Pale red paste 10 R 6/2; horizontal combing ext.; fabric 2.
19	7695	Hole-mouth	181	Pale red paste 10 R 6/3; fabric 2.
20	1131	Hole-mouth	045	Light red paste 2.5 YR 7/6; fabric 2.

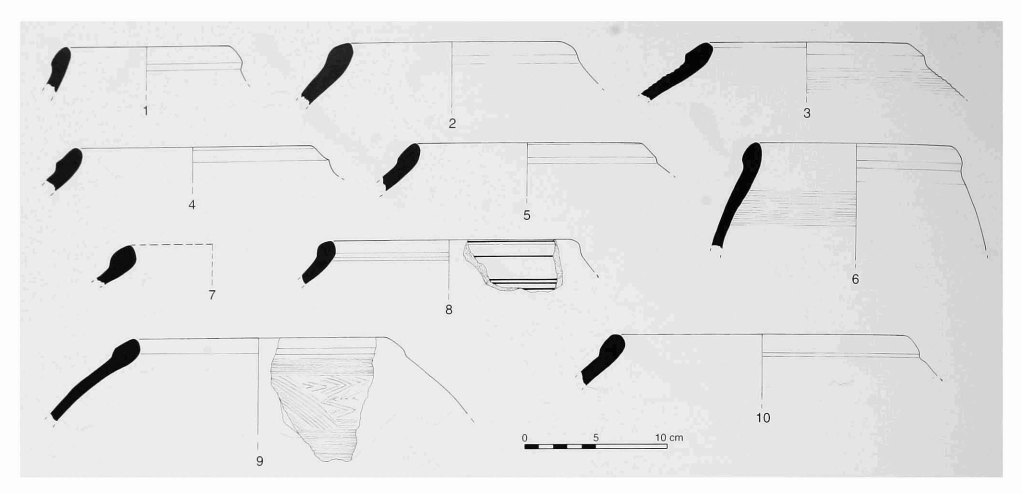


Plate 131.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	1198	Hole-mouth	047	Pale red paste 2.5 YR 7/2; fabric 2.
2	7132	Hole-mouth	165	Pink paste 5 YR 7/4; fabric 2.
3	1487	Hole-mouth	053	Reddish grey paste 10 R 5/1; horizontal combing ext.; fabric 1.
4	928	Hole-mouth	043	Reddish grey paste 10 R 5/1; fabric 2.
5	3588	Hole-mouth	093	Pale red paste 2.5 YR 6/2; fabric 2.
6	1185	Hole-mouth	046	Light red paste 2.5 YR 6/8; fabric 2.
7	7748	Hole-mouth	181	Light reddish brown paste 2.5 YR 7/3; fabric 2.
8	11381	Hole-mouth	008	Light red paste 2.5 YR 6/8; horizontal incisions ext.; fabric 2.
9	633	Hole-mouth	011	Pale red paste 10 R 6/4; pattern combing ext.; fabric 2.
10	524	Hole-mouth	006	Light reddish brown paste 2.5 YR 7/4; fabric 2.

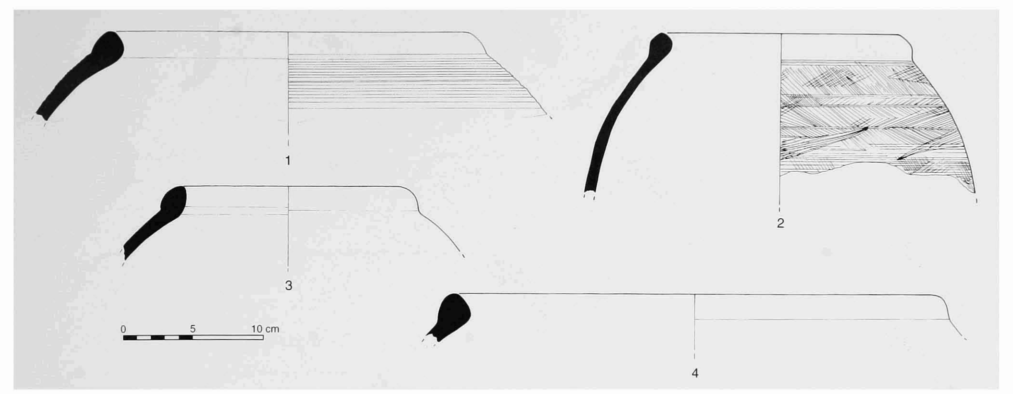


Plate 132.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	11383	Hole-mouth	011	Red paste 10 R 5/8; horizontal combing ext.; fabric 3.
2	1120	Hole-mouth	045	Light red paste 10 R 6/8; pattern combing ext.; fabric 2.
3	2592	Hole-mouth	082	Pale red paste 10 R 6/6; fabric 3.
4	7724	Hole-mouth	181	Light reddish brown paste 2.5 YR 7/4; fabric 2.

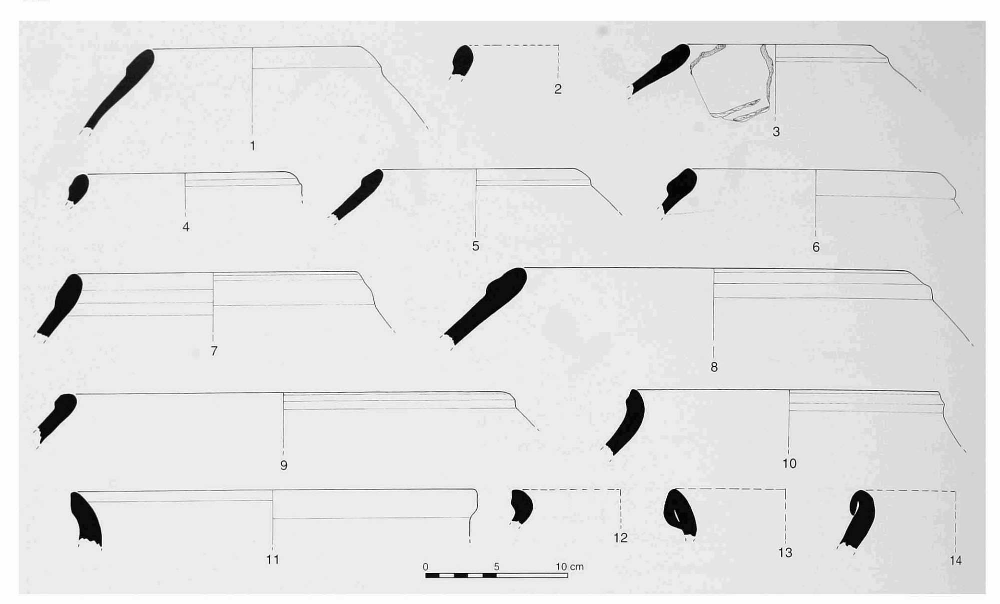


Plate 133.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	11240	Hole-mouth	218	Light red paste 10 R 6/6; fabric 2.
2	10684	Hole-mouth	265	Red paste 10 R 5/8; fabric 2.
3	7124	Hole-mouth	165	Light reddish brown paste 2.5 YR 7/4; incisions int.; fabric 2.
4	3033	Hole-mouth	081	Reddish grey paste 10 R 5/1; fabric 3.
5	2772	Hole-mouth	076	Pale red paste 2.5 YR 7/2; fabric 2.
6	11382	Hole-mouth	011	Reddish yellow paste 5 YR 7/6; fabric 2.
7	9468	Hole-mouth	265	Light red paste 10 R 6/4; fabric 3.
8	11203	Hole-mouth	218	Light red paste 10 R 6/8; fabric 2.
9	6985	Hole-mouth	156	Light red paste 10 R 6/6; fabric 2.
10	1325	Hole-mouth	052	Pale red paste 10 R 6/2; fabric 2.
11	11231	Hole-mouth	218	Weak red paste 10 R 5/4; fabric 2.
12	9910	Hole-mouth	276	Light red paste 10 R 6/6; fabric 1.
13	7690	Hole-mouth	181	Pale red paste 10 R 6/4; fabric 2.
14	10703	Hole-mouth	287	Light red paste 10 R 6/6; fabric 2.

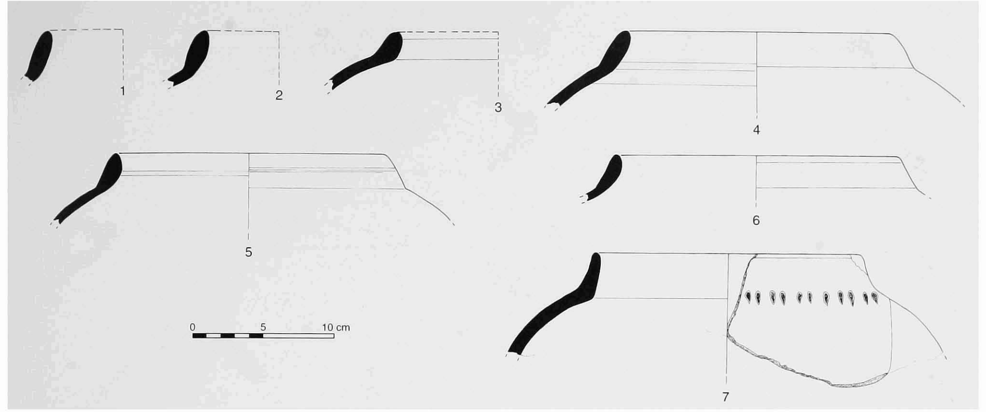


Plate 134.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	9770	Hole-mouth	276	Light reddish brown paste 2.5 YR 7/3; fabric 2.
2	9506	Hole-mouth	276	Pale red paste 10 R 6/2; fabric 2.
3	1270	Hole-mouth	048	Pale red paste 10 R 6/2; smoke-blackened rim; fabric 2.
4	9752	Hole-mouth	276	Light reddish brown paste 2.5 YR 7/3; fabric 2.
5	11204	Hole-mouth	218	Pink paste 5 YR 7/4; fabric 2.
6	11232	Hole-mouth	218	Pink paste 5 YR 7/4; fabric 2.
7	544	Hole-mouth	006	Light reddish brown paste 2.5 YR 7/4; oval incisions at junction between neck and shoulder; fabric 2.

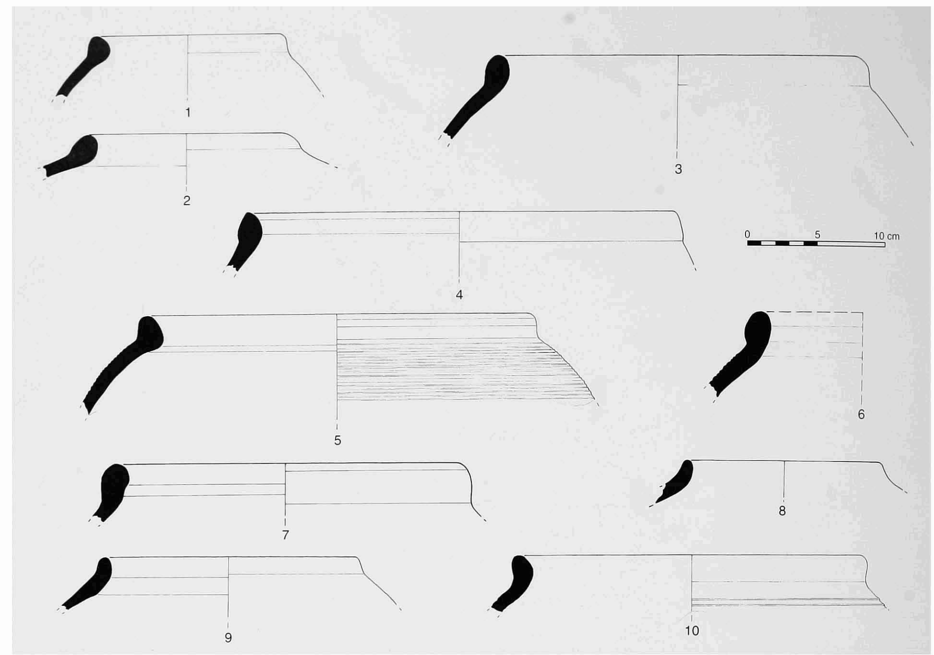


Plate 135.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	557	Hole-mouth	007	Light red paste 10 R 6/6; fabric 3.
2	3035	Hole-mouth	081	Pale red paste 2.5 YR 7/2; fabric 2.
3	573	Hole-mouth	007	Light red paste 10 R 6/6; fabric 2.
4	7161	Hole-mouth	165	Pink paste 5 YR 7/4; fabric 3.
5	1652	Hole-mouth	051	Light red paste 10 R 6/6; horizontal combing ext.; fabric 3.
6	11350	Hole-mouth	008	Light red paste 10 R 6/8; fabric 2.
7	932	Hole-mouth	043	Red paste 10 R 5/6; fabric 1.
8	3595	Hole-mouth	093	Light red paste 10 R 6/8; fabric 2.
9	1160	Hole-mouth	046	Light reddish brown paste 2.5 YR 6/3; fabric 2.
10	539	Hole-mouth	006	Light reddish brown paste 2.5 YR 7/4; fabric 2.

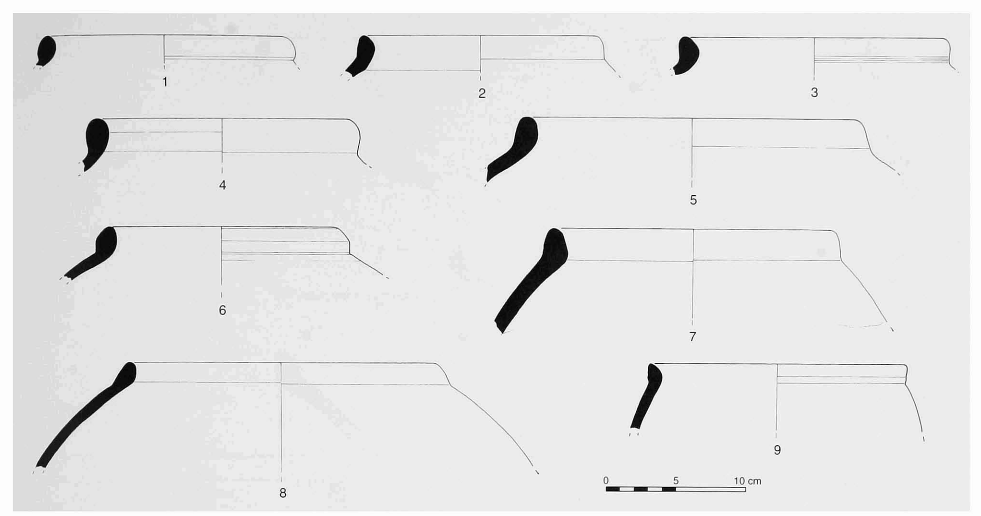


Plate 136.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	2768	Hole-mouth	076	Pale red paste 2.5 YR 7/2; fabric 2.
2	2781	Hole-mouth	076	Pale red paste 2.5 YR 7/2; fabric 2.
3	9497	Hole-mouth	276	Red paste 10 R 5/8; fabric 2.
4	551	Hole-mouth	007	Light reddish brown paste 2.5 YR 7/3; horizontal combing ext.; fabric 3.
5	4303	Hole-mouth	038	Light reddish brown paste 2.5 YR 7/3; fabric 3.
6	796	Hole-mouth	043	Pale red paste 10 R 6/4; smoke-blackened rim; fabric 2.
7	522	Hole-mouth	006	Light reddish brown paste 2.5 YR 7/4; horizontal combing ext.; fabric 2.
8	1391	Hole-mouth	052	Reddish grey paste 10 R 6/1; horizontal combing ext.; fabric 1.
9	1191	Hole-mouth	049	Light red paste 10 R 6/8; fabric 3.

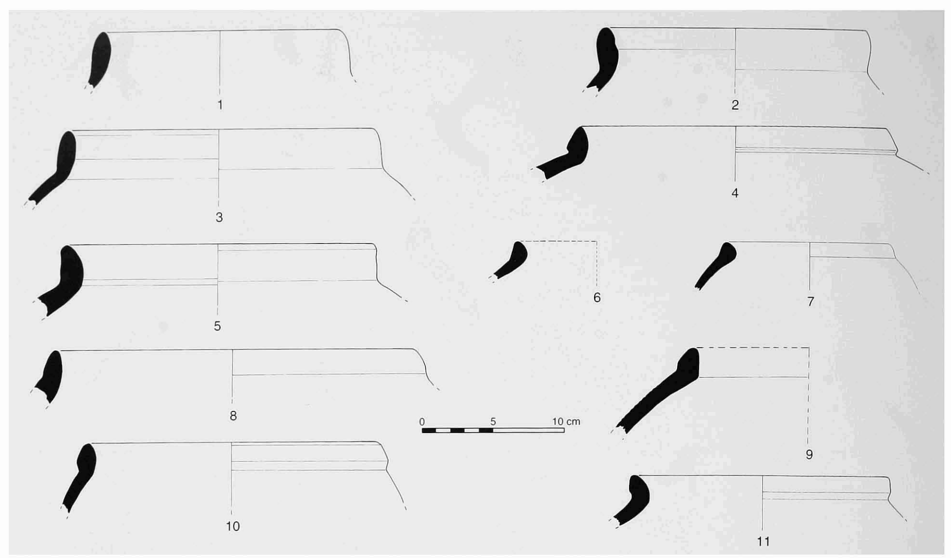


Plate 137.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	9476	Hole-mouth	265	Reddish yellow paste 7.5 YR 7/6; fabric 2.
2	9509	Hole-mouth	276	Light red paste 2.5 YR 7/8; fabric 2.
3	9504	Hole-mouth	276	Pale red paste 10 R 6/3; fabric 2.
4	1348	Hole-mouth	052	Reddish grey paste 10 R 6/1; fabric 3.
5	9857	Hole-mouth	287	Light reddish brown paste 2.5 YR 7/4; black smokened rim; fabric 2.
6	9872	Hole-mouth	287	Pale red paste 10 R 6/4; fabric 2.
7	2771	Hole-mouth	076	Pale red paste 2.5 YR 7/2; fabric 1.
8	11233 11218	Hole-mouth	218	Light red paste 10 R 6/6; fabric 2.
9	1188	Hole-mouth	049	Pale red paste 10 R 6/2; light horizontal combing ext.; fabric 2.
10	7416	Hole-mouth	175	Pale red paste 10 R 6/4; smoke-blackened rim; fabric 2.
11	7418	Hole-mouth	175	Pale red paste 10 R 6/2; fabric 2.

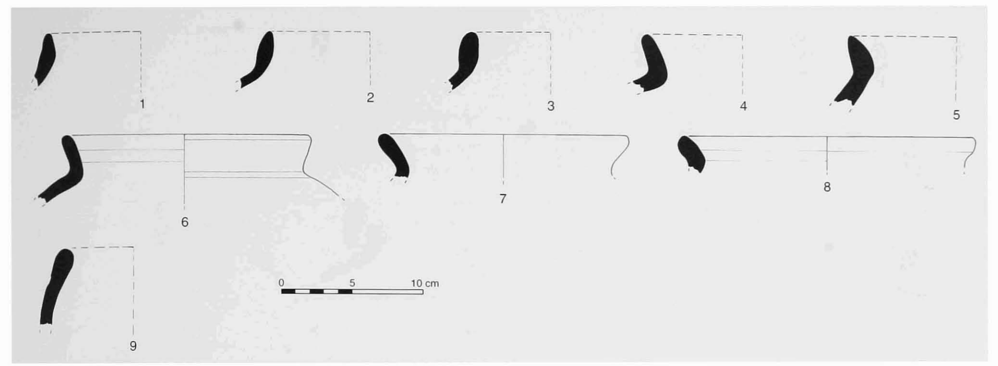


Plate 138.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	9756	Hole-mouth	276	Pale red paste 10 R 6/2; fabric 2.
2	9512	Hole-mouth	276	Light reddish brown paste 2.5 YR 6/4; fabric 2.
3	9498	Hole-mouth	276	Light reddish brown paste 2.5 YR 6/4; fabric 2.
4	9494	Hole-mouth	276	Light reddish brown paste 2.5 YR 6/4; fabric 2.
5	10674	Hole-mouth	265	Light reddish brown paste 5 YR 6/3; fabric 2.
6	9755 9753	Hole-mouth	276	Light reddish brown paste 2.5 YR 7/3; fabric 2.
7	9499	Hole-mouth	276	Light reddish brown paste 2.5 YR 7/3; fabric 2.
8	1403	Hole-mouth	052	Reddish grey paste 10 R 6/6; fabric 1.
9	526	Hole-mouth	006	Light reddish brown paste 2.5 YR 7/4; fabric 3.

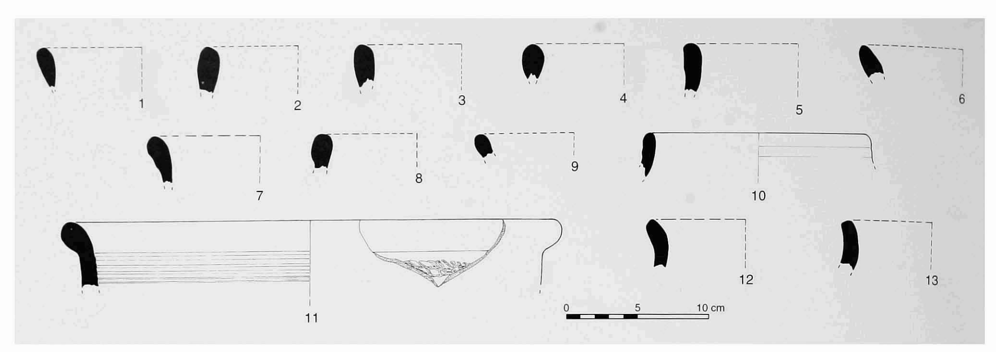


Plate 139.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	9768	Hole-mouth	276	Pale red paste 10 R 6/4; fabric 2.
2	9467	Hole-mouth	265	Light reddish brown paste 2.5 YR 6/4; fabric 2.
3	9474	Hole-mouth	265	Light reddish brown paste 2.5 YR 6/4; fabric 2.
4	2623	Hole-mouth	082	Light red paste 10 R 6/8; fabric 2.
5	9869	Hole-mouth	287	Pale red paste 10 R 6/3; fabric 2.
6	9902	Hole-mouth	276	Light red paste 2.5 YR 7/8; fabric 2.
7	11325	Hole-mouth	011	Red paste 10 R 4/6; fabric 3.
8	9470	Hole-mouth	265	Light red paste 2.5 YR 7/8; fabric 2.
9	10686	Hole-mouth	265	Pink paste 5 YR 7/4; fabric 2.
10	1451	Hole-mouth	053	Weak red paste 10 R 5/3; fabric 3.
11	1469	Hole-mouth	054	Light red paste 2.5 YR 7/8; incisions ext.; fabric 2.
12	1394	Hole-mouth	052	Red paste 10 R 5/8; fabric 3.
13	1429	Hole-mouth	052	Pale red paste 10 R 6/4; fabric 2.

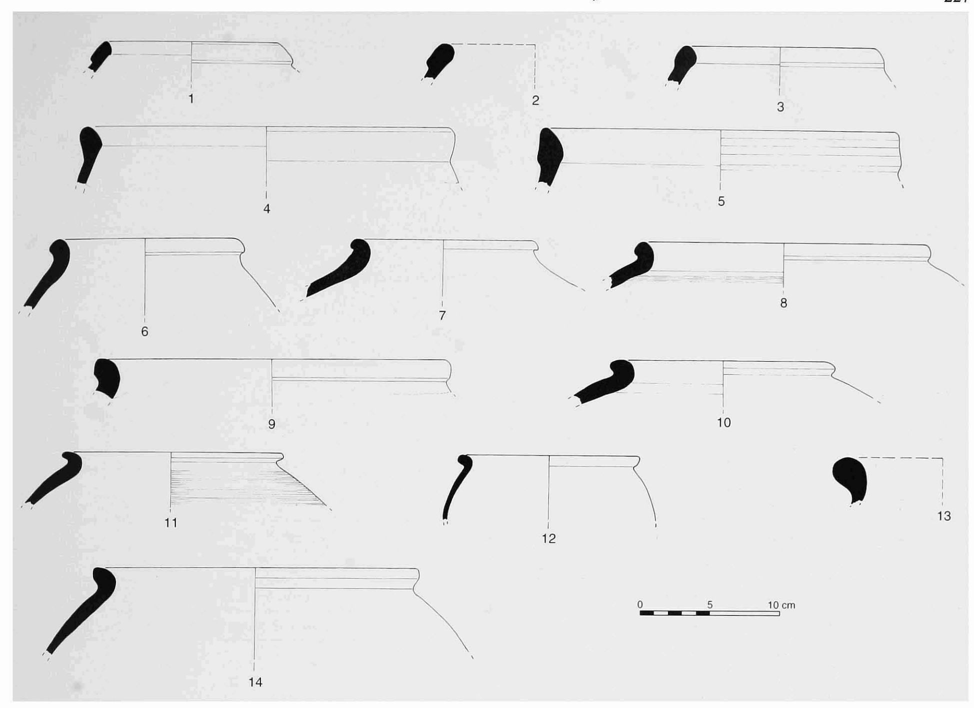


Plate 140a.

STRATUM 6

Number	Reg. Number	Object	Locus No	Description
1	1281	Hole-mouth	050	Pale red paste 2.5 YR 7/2; fabric 2.
2	7738	Hole-mouth	181	Pale red paste 10 R 6/2; fabric 2.
3	1166	Hole-mouth	046	Pale red paste 10 R 6/4; fabric 2.
4	636	Hole-mouth	011	Light reddish brown paste 2.5 YR 7/4; fabric 2.
5	1278	Hole-mouth	050	Pale red paste 2.5 YR 7/2; fabric 2.
6	1181	Hole-mouth	046	Light reddish brown paste 2.5 YR 6/3; fabric 2.
7	550	Hole-mouth	006	Light red paste 2.5 YR 7/6; fabric 2.
8	1226	Hole-mouth	052	Light reddish brown paste 2.5 YR 7/4; smoke-blackened rim; fabric 2.
9	620	Hole-mouth	008	Light reddish brown paste 2.5 YR 6/3; smoke-blackened rim; fabric 3.
10	1412	Hole-mouth	052	Light reddish grey paste 2.5 YR 7/1; fabric 2.
11	1342	Hole-mouth	052	Light reddish brown paste 2.5 YR 7/4; smoke-blackened rim; horizontal combing ext.; fabric 2.
12	2612	Hole-mouth	082	Pale red paste 10 R 6/4; fabric 1.
13	790	Hole-mouth	043	Light red paste 10 R 6/6; fabric 2.
14	11351	Hole-mouth	008	Light red paste 10 R 6/8; fabric 2.

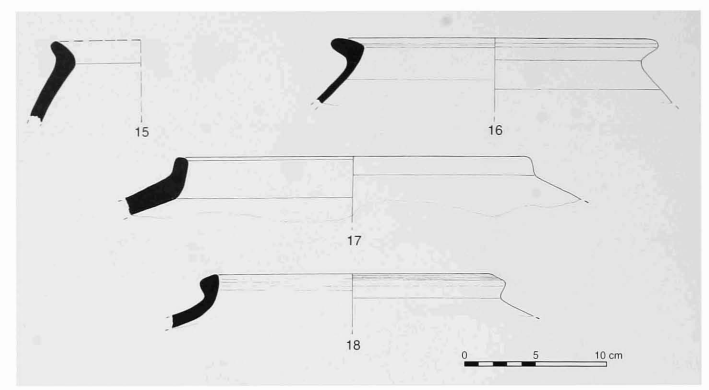


Plate 140b.

STRATUM 6

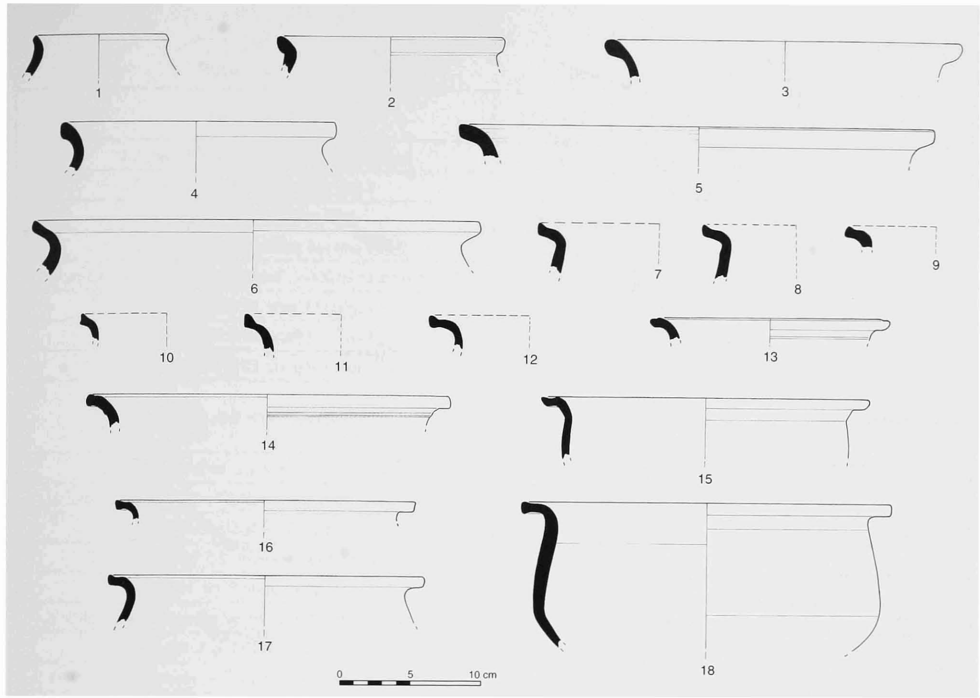
Number	Reg. Number	Object	Locus No	Description
15	1209	Hole-mouth	047	Grey paste 5 YR 5/1; fabric 2.
16	533	Hole-mouth	006	Pale red paste 2.5 YR 7/6; fabric 2.
17	569	Hole-mouth	007	Pink paste 5 YR 8/3; fabric 5.
18	11353	Hole-mouth	008	Light reddish brown paste 2.5 YR 7/4; fabric 2.



Plate 141.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	11274	Lamp	008	Light red paste 10 R 6/8; height: 3.76 cm; diameter: 8.1 cm; fabric 1 (**photo 23**, p. 74).
2	1503	Lamp	053	Light red paste 2.5 YR 7/6; fabric 2 (**photo 22**, p. 74).



STRATUM 6

Plate 142.

Number	Reg. Number	Object	Locus N°	Description
1	1408	Cooking pot	052	Pale red paste 10 R 6/3; fabric 3.
2	1331	Cooking pot	052	Pale red paste 10 R 6/3; fabric 2.
3	1328	Cooking pot	052	Light red paste 10 R 6/6; fabric 1.
4	879	Cooking pot	043	Pale red paste 10 R 6/3; fabric 2.
5	1411	Cooking pot	052	Pale red paste 10 R 6/3; fabric 3.
6	911-920	Cooking pot	043	Light red paste 10 R 6/6; fabric 3.
7	804	Cooking pot	043	Light red paste 10 R 6/6; fabric 3.
8	786	Cooking pot	043	Light red paste 10 R 6/6; fabric 2.
9	1284	Cooking pot	047	Red paste 10 R 4/8; smoke-blackened rim; fabric 3.
10	1351	Cooking pot	052	Weak red paste 10 R 5/4; fabric 2.
11	925	Cooking pot	043	Light red paste 10 R 6/6; fabric 3.
12	816	Cooking pot	043	Light red paste 10 R 6/6; fabric 3.
13	896	Cooking pot	043	Light red paste 10 R 6/6; fabric 3.
14	856	Cooking pot	043	Light red paste 10 R 6/6; fabric 2.
15	823	Cooking pot	043	Light red paste 10 R 6/3; fabric 2.
16	966	Cooking pot	043	Weak red paste 10 R 5/4; fabric 3.
17	859	Cooking pot	043	Weak red paste 10 R 5/4; fabric 2.
18	797	Cooking pot	043	Light red paste 10 R 6/6; fabric 3.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	7798	Base	181	Reddish grey paste 10 R 6/1; fabric 1.
2	7153	Base	165	Light red paste 10 R 6/8; fabric 2.
3	4301	Base	038	Red paste 10 R 6/6; fabric 1.
4	7401	Base	175	Light red paste 10 R 6/6; fabric 1.
5	7258	Base	165	Pale red paste 10 R 6/4; horizontal combing ext.; fabric 2.
6	7162	Base	165	Light red paste 10 R 6/6; fabric 1.
7	7272	Base	165	Light red paste 10 R 6/6; fabric 1.
8	7281	Base	165	Light red paste 10 R 6/8; fabric 1.
9	9757 9765 9762	Base	276	Red paste 10 R 6/6; fabric 1.
10	1158	Base	046	Dark reddish grey paste 10 R 4/1; fabric 2.
11	1401	Base	052	Pale red paste 10 R 6/4; vertical burnishing ext.; fabric 2.
12	10676	Base	265	Red paste 10 R 5/8; fabric 2.
13	17062	Base	011	Light reddish brown paste 2.5 YR 7/4; fabric 2.
14	7113	Base	165	Reddish yellow paste 5 YR 7/6; fabric 2.
15	1433	Base	052	Weak red paste 10 R 5/3; vertical burnishing ext.; fabric 1.
16	15698	Base	011	Light red paste 10 R 6/8; fabric 1.
17	1236	Base	047	Light reddish brown paste 2.5 YR 7/4; black paint int.; fabric 2.
18	1215	Base	047	Light red paste 10 R 6/6; fabric 2.
19	11207	Base	218	Reddish grey paste 2.5 YR 5/1; fabric 1.
20	15699	Base	008	Light red paste 10 R 6/8; fabric 1.
21	7784	Base	181	Reddish grey paste 10 R 6/1; fabric 1.
22	7207	Base	165	Pale red paste 10 R 6/3; fabric 2.
23	11352	Base	008	Pale red paste 10 R 6/4; fabric 2.
24	613	Base	011	Light red paste 10 R 6/8; fabric 1.
25	7396	Base	175	Light red paste 10 R 6/6; burnished ext.; fabric 2.
26	6971	Base	156	Light red paste 10 R 6/8; fabric 2.
27	6977	Base	156	Light red paste 10 R 6/8; fabric 1.
28	7239	Base	165	Light red paste 2.5 YR 7/6; vertical burnishing ext.; fabric 1.
29	542	Base	006	Light reddish brown paste 2.5 YR 7/4; fabric 2.
30	637	Base	011	Light red paste 10 R 6/8; fabric 1.
31	7392	Base	175	Light red paste 10 R 6/8; fabric 2.
32	7799	Base	181	Pale red paste 10 R 6/4; fabric 1.
33	7261	Base	165	Light red paste 10 R 6/8; fabric 1.
34	7235	Base	165	Pale red paste 10 R 6/4; fabric 1.

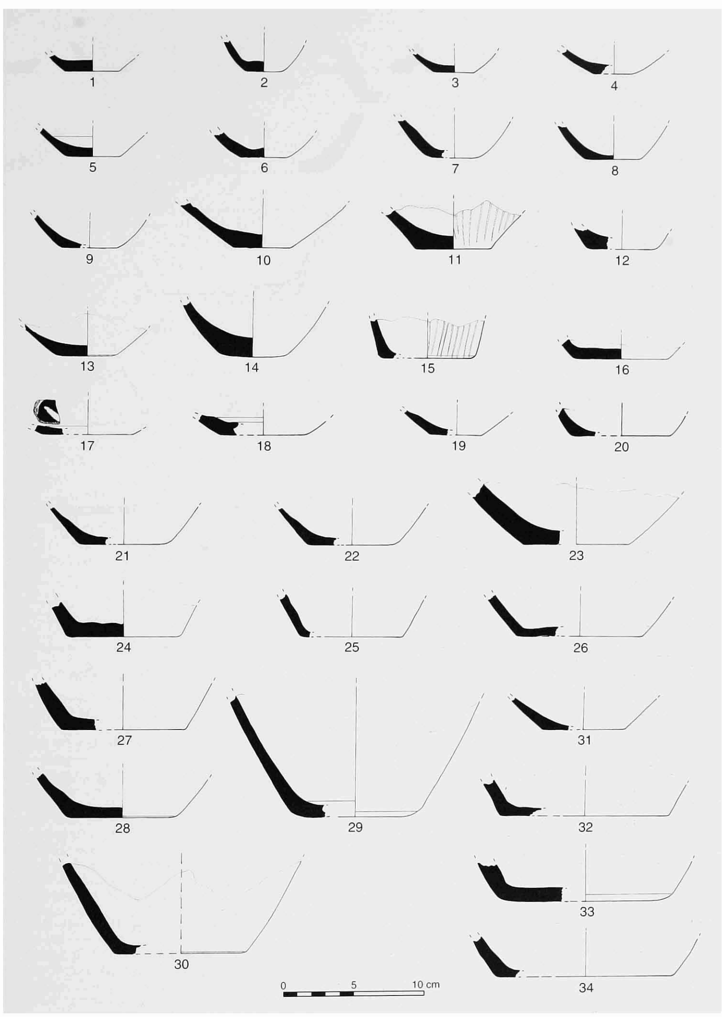

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Plate 143.

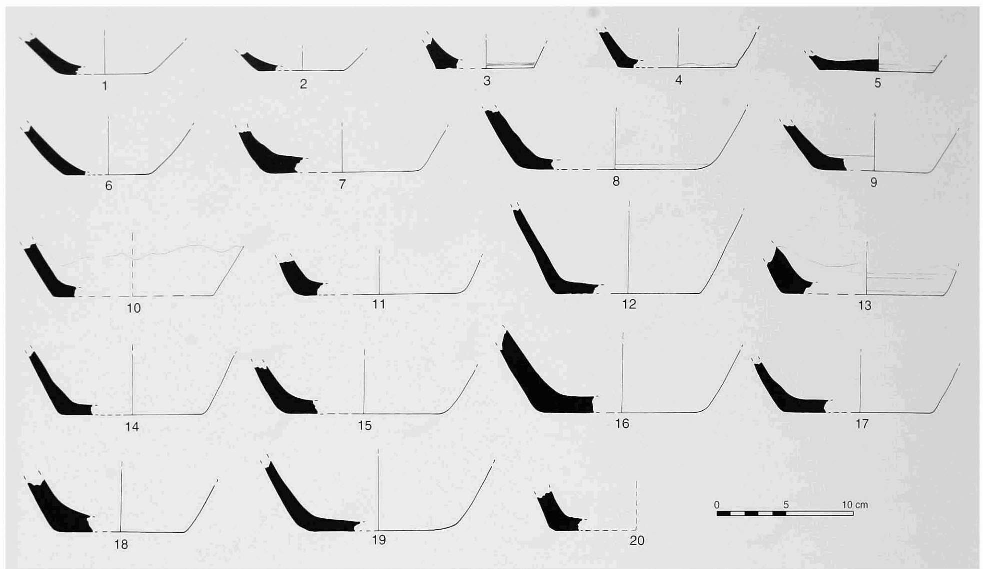


Plate 144.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	9853	Base	287	Light red paste 2.5 YR 7/6; fabric 2.
2	11222	Base	218	Light red paste 10 R 6/8; fabric 2.
3	2789	Base	076	Light red paste 10 R 6/6; light horizontal combing ext.; fabric 1.
4	1457	Base	052	Red paste 10 R 5/6; fabric 2.
5	1317	Base	052	Red paste 10 R 5/6; fabric 1.
6	9851	Base	287	Light red paste 10 R 5/8; fabric 1.
7	7222	Base	165	Light red paste 10 R 6/6; fabric 1.
8	7373	Base	175	Pale red paste 10 R 6/3; fabric 2.
9	566	Base	007	Red paste 10 R 5/8; fabric 1.
10	11384	Base	011	Light reddish brown paste 2.5 YR 6/4; fabric 2.
11	7238	Base	165	Light red paste 10 R 6/8; light horizontal combing ext.; fabric 2.
12	7371	Base	175	Light red paste 10 R 6/8; fabric 1.
13	1472	Base	053	Pink paste 7.5 YR 8/4; light horizontal combing ext.; fabric 2.
14	7214	Base	165	Light red paste 10 R 6/8; light horizontal combing ext.; fabric 2.
15	7795	Base	181	Light red paste 10 R 6/8; fabric 2.
16	7775	Base	181	Light red paste 10 R 6/6; fabric 2.
17	7215	Base	165	Light red paste 10 R 6/6; fabric 1.
18	8038	Base	209	Red paste 10 R 4/8; fabric 2.
19	11349	Base	006	Red paste 10 R 5/6; fabric 1.
20	7793	Base	181	Weak red paste 10 R 5/2; fabric 1.

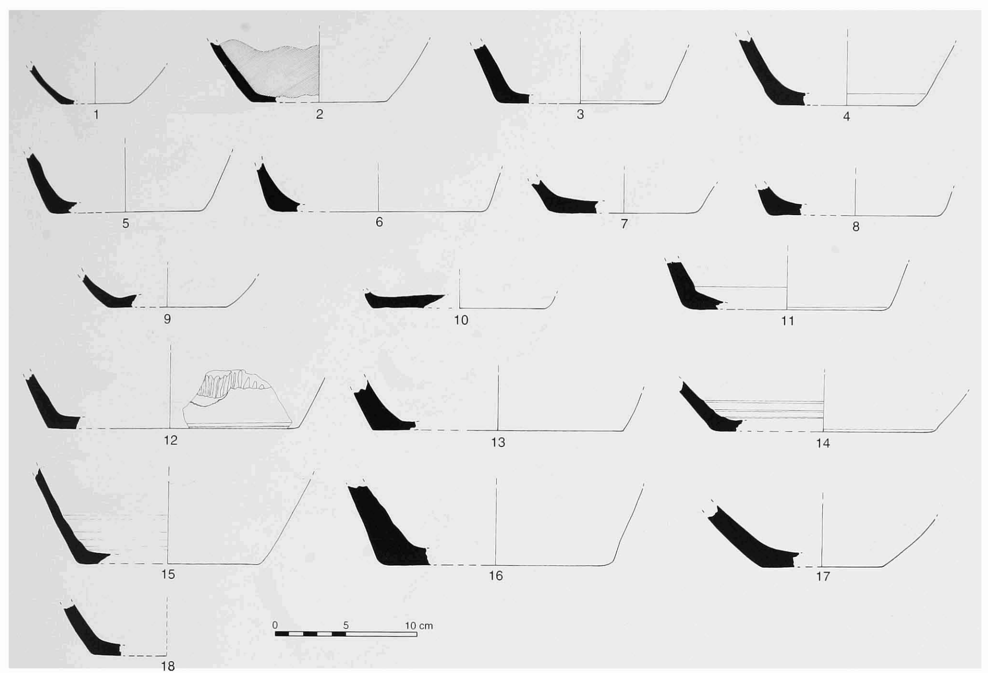


Plate 145.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	9860	Base	287	Pale red paste 10 R 6/4; fabric 1.
2	7225	Base	165	Light red paste 10 R 6/6; red slip int.; fabric 1.
3	7205	Base	165	Light red paste 10 R 6/6; fabric 1.
4	7219	Base	165	Light red paste 2.5 YR 7/8; fabric 1.
5	7216	Base	165	Light red paste 10 R 6/6; fabric 1.
6	7254	Base	165	Light red paste 10 R 6/8; fabric 2.
7	1165	Base	046	Light red paste 10 R 6/8; fabric 2.
8	9395	Base	276	Light reddish brown paste 2.5 YR 7/4; fabric 2.
9	11242	Base	218	Weak red paste 10 R 5/4; fabric 1.
10	15701	Base	008	Light red paste 10 R 6/8; fabric 1.
11	7808	Base	181	Light red paste 2.5 YR 7/6; fabric 2.
12	6970	Base	156	Light red paste 10 R 6/8; vertical combing ext.; fabric 1.
13	7387	Base	175	Weak red paste 10 R 5/2; fabric 2.
14	7791	Base	181	Light red paste 10 R 6/8; fabric 2.
15	11385	Base	008	Pale red paste 10 R 6/4; fabric 1.
16	7762	Base	181	Pale red paste 10 R 6/4; fabric 1.
17	11348	Base	006	Red paste 10 R 5/8; fabric 2.
18	11225	Base	011	Red paste 10 R 5/6; fabric 1.

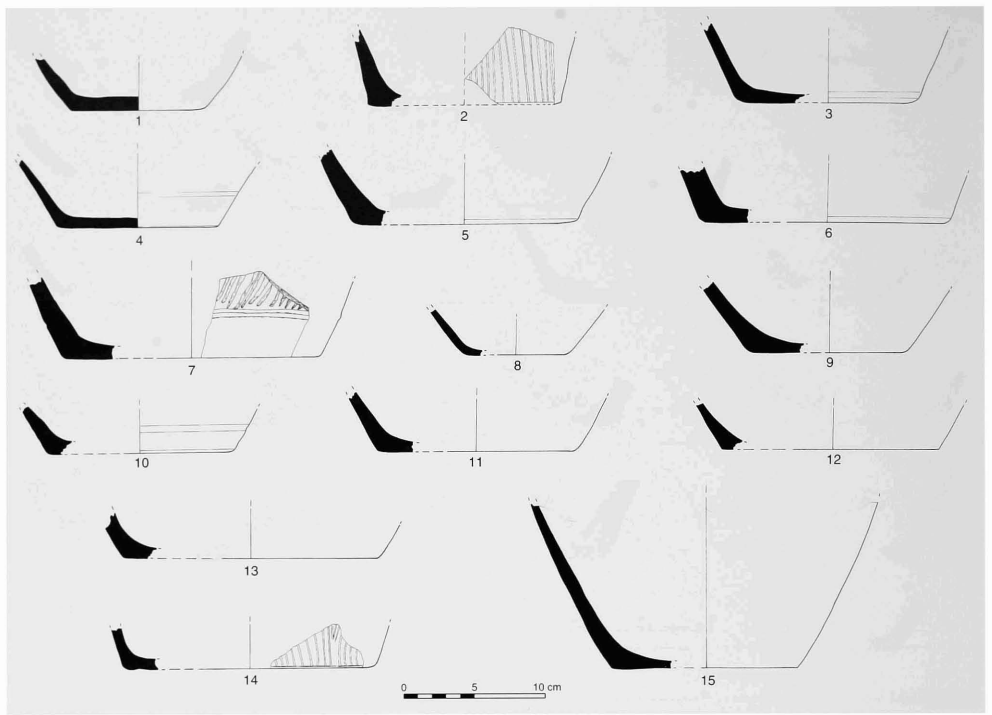
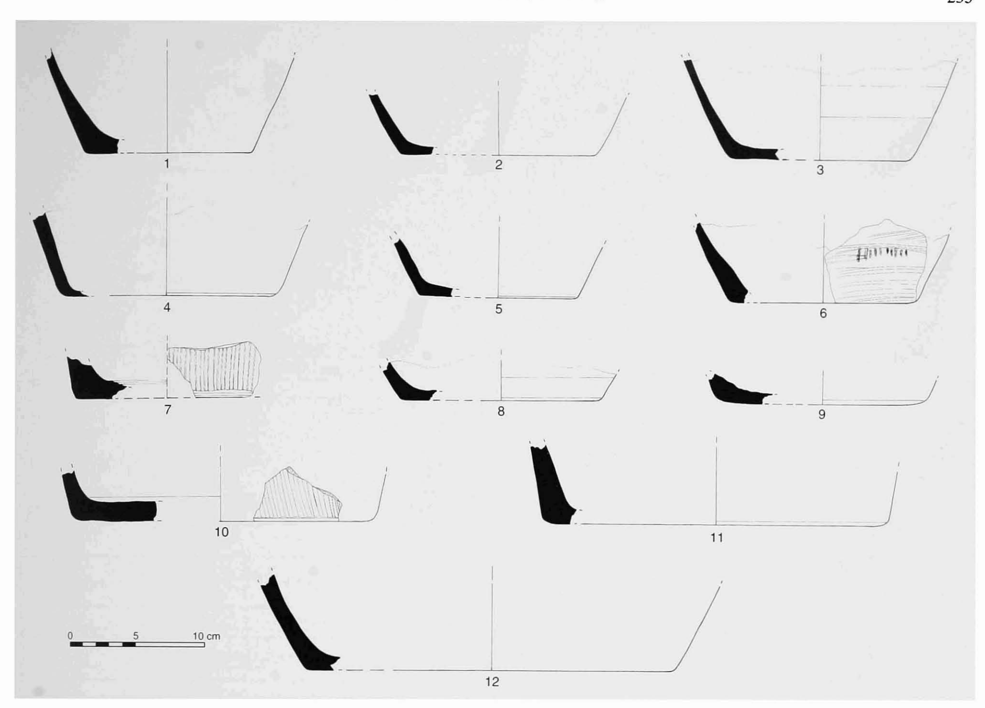


Plate 146.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	7192	Base	165	Pale red paste 10 R 6/6; fabric 2.
2	6976	Base	156	Light reddish brown paste 2.5 YR 7/4; vertical combing ext.; fabric 2.
3	7196	Base	165	Pale red paste 10 R 6/6; fabric 2.
4	3585	Base	093	Red paste 10 R 5/6; fabric 1.
5	7223	Base	165	Light red paste 10 R 6/8; fabric 1.
6	7776	Base	181	Light red paste 10 R 6/8; vertical combing ext.; fabric 2.
7	7194	Base	165	Light red paste 2.5 YR 7/6; pattern combing ext.; fabric 2.
8	11227	Base	218	Weak red paste 10 R 5/2; burnished ext.; fabric 2.
9	7763	Base	181	Light red paste 10 R 6/8; fabric 1.
10	7255	Base	165	Light red paste 10 R 6/8; fabric 1.
11	6963	Base	156	Red paste 10 R 5/6; fabric 2.
12	6999	Base	156	Light reddish brown paste 2.5 YR 7/4; fabric 2.
13	7372	Base	175	Red paste 10 R 5/6; fabric 1.
14	7389	Base	175	Light red paste 10 R 6/8; vertical combing ext.; fabric 1.
15	1498	Base	053	Light red paste 10 R 6/6; fabric 1.



STRATUM 6

Plate 147.

Number	Reg. Number	Object	Locus N°	Description
1	3036	Base	081	Light red paste 10 R 6/6; fabric 1.
2	11386	Base	007	Light reddish brown paste 2.5 YR 6/4; fabric 2.
3	1473	Base	053	Light red paste 2.5 YR 7/8; fabric 1.
4	540	Base	006	Pale red paste 10 R 6/4; fabric 1.
5	2786	Base	076	Pale red paste 10 R 6/4; fabric 1.
6	1251	Base	047	Light reddish brown paste 2.5 YR 6/4; horizontal combing ext.; fabric 2.
7	1358	Base	052	Light red paste 10 R 6/8; vertical combing ext.; fabric 1.
8	1250	Base	047	Pale red paste 10 R 6/4; fabric 2.
9	9849	Base	287	Light red paste 10 R 6/8; fabric 2.
10	635	Base	011	Pale red paste 10 R 6/4; diagonal combing ext.; fabric 1.
11	11387	Base	007	Light red paste 10 R 6/8; fabric 2.
12	2589	Base	082	Red paste 10 R 5/6; fabric 1.

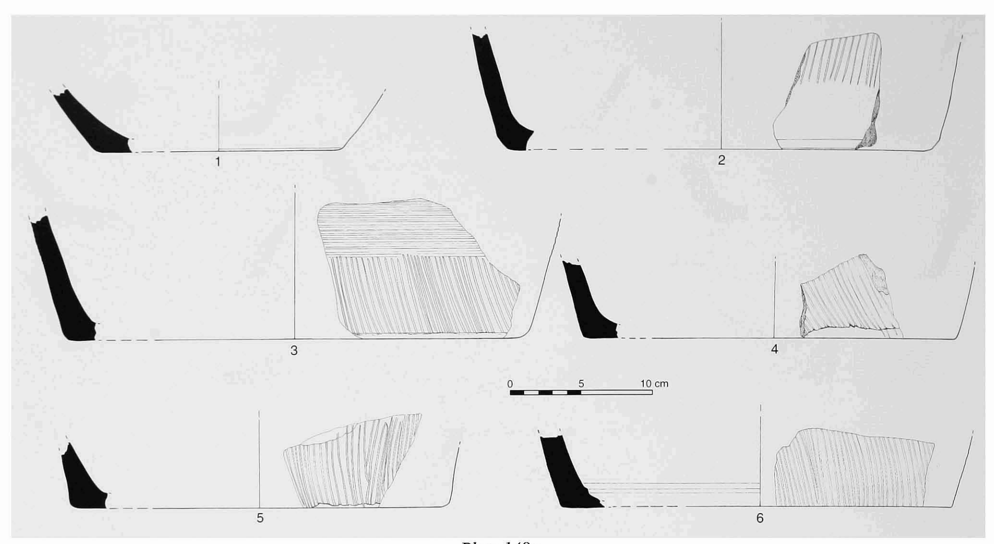


Plate 148a.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	11212	Base	218	Reddish grey paste 10 R 6/1; fabric 2.
2	7369	Base	175	Weak red paste 10 R 5/2; diagonal combing ext.; fabric 2.
3	9469	Base	265	Light red paste 2.5 YR 6/8; horizontal and diagonal combing ext.; fabric 2.
4	1303	Base	052	Pale red paste 10 R 6/4; diagonal combing ext.; fabric 1.
5	1319	Base	052	Pale red paste 10 R 6/3; vertical combing ext.; fabric 2.
6	1499	Base	053	Light red paste 2.5 YR 7/8; vertical combing ext.; fabric 1.

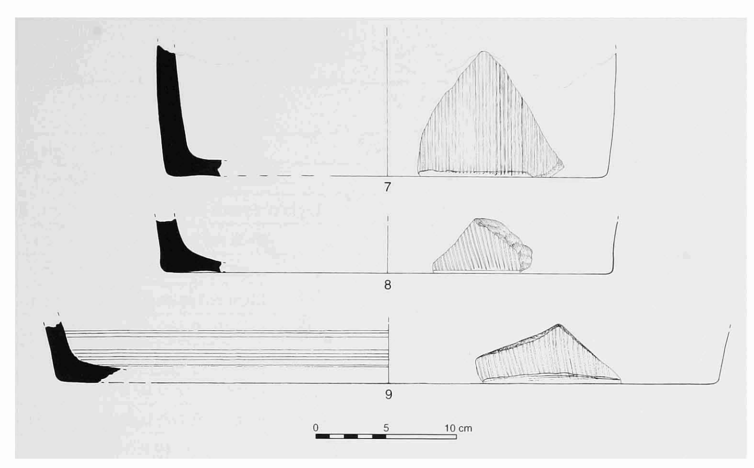


Plate 148b.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
7	1496	Base	053	Light red paste 2.5 YR 6/6; vertical combing ext.; fabric 1.
8	1350	Base	052	Pale red paste 10 R 6/8; diagonal combing ext.; fabric 1.
9	1299	Base	052	Light red paste 10 R 6/6; vertical combing ext.; fabric 2.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	7835	Base	181	Weak red paste 10 R 5/4; fabric 1.
2	7807	Base	181	Pale red paste 10 R 6/3; fabric 1.
3	7817	Base	181	Light red paste 10 R 6/8; burnished ext.; fabric 1.
4	7844	Base	181	Pale red paste 10 R 6/4; fabric 1.
5	7266	Base	165	Light red paste 10 R 6/6; fabric 2.
6	7271	Base	165	Light red paste 10 R 6/6; fabric 1.
7	7256	Base	165	Light red paste 10 R 6/6; light combing ext.; fabric 1.
8	7381	Base	175	Light red paste 10 R 6/8; fabric 2.
9	9861	Base	287	Light red paste 10 R 6/8; fabric 1.
10	7829	Base	181	Light red paste 10 R 6/8; light combing ext.; fabric 2.
11	7830	Base	181	Red paste 10 R 5/6; fabric 2.
12	7250	Base	165	Light red paste 10 R 6/6; fabric 2.
13	7841	Base	181	Light red paste 10 R 6/6; fabric 2.
14	7259	Base	165	Light red paste 10 R 6/8; fabric 1.
15	7812	Base	181	Light red paste 10 R 6/6; fabric 1.
16	7211	Base	165	Pale red paste 10 R 6/4; fabric 1.
17	7840	Base	181	Light red paste 2.5 YR 7/6; fabric 2.
18	7836	Base	181	Light red paste 10 R 6/6; fabric 2.
19	512	Base	006	Light red paste 10 R 6/6; fabric 1.
20	11243	Base	218	Red paste 10 R 5/6; fabric 2.
21	7400	Base	175	Light red paste 10 R 6/8; fabric 1.
22	7393	Base	175	Red paste 10 R 5/6; fabric 1.
23	7282	Base	165	Pale red paste 10 R 6/4; fabric 1.
24	7243	Base	165	Light red paste 10 R 6/6; fabric 1.
25	7749	Base	181	Weak red paste 10 R 5/4; fabric 1.
26	7846	Base	181	Light red paste 10 R 6/6; fabric 1.
27	7824	Base	181	Light red paste 10 R 6/8; fabric 2.
28	7790	Base	181	Red paste 10 R 5/6; fabric 2.
29	7193	Base	165	Weak red paste 10 R 5/4; fabric 1.
30	7821	Base	181	Light red paste 10 R 6/8; fabric 2.
31	1418	Base	052	Reddish grey paste 10 R 6/1; fabric 3.
32	7843	Base	181	Dark reddish grey paste 10 R 4/1; fabric 2.
33	7838	Base	181	Light reddish brown paste 2.5 YR 6/4; fabric 2.
34	7826	Base	181	Light red paste 10 R 6/8; fabric 1.
35	7274	Base	165	Light red paste 10 R 6/6; fabric 1.
36	7818	Base	181	Light red paste 10 R 6/8; burnished ext.; fabric 2.
37	7218	Base	165	Light red paste 2.5 YR 7/6; fabric 2.
38	7761	Base	181	Light reddish brown paste 2.5 YR 7/3; fabric 2.
39	7778	Base	181	Light red paste 10 R 6/6; fabric 2.
40	11228	Base	218	Pink paste 5 YR 7/4; fabric 2.

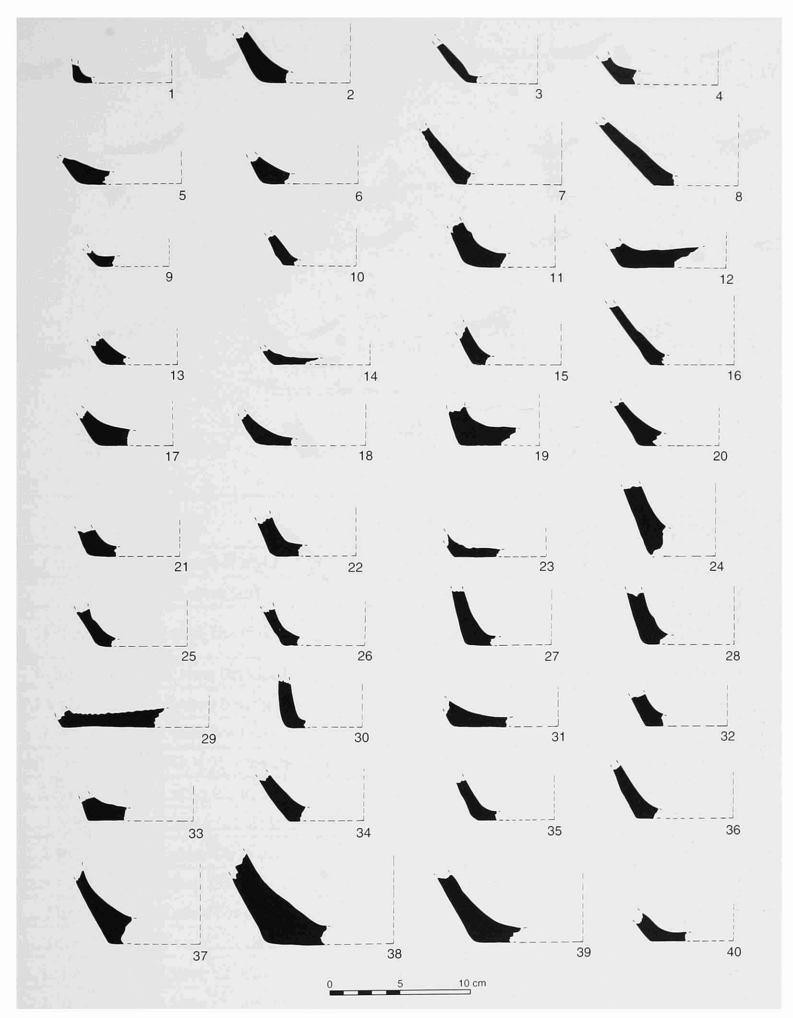

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Plate 149.

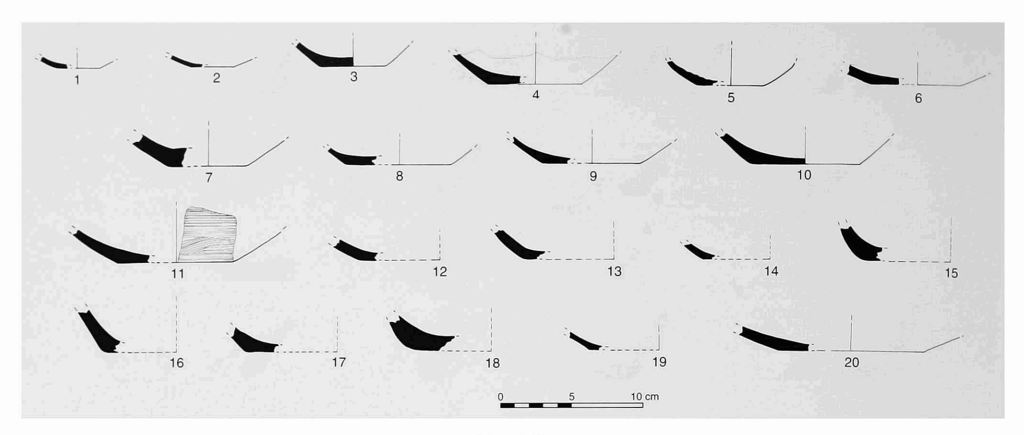
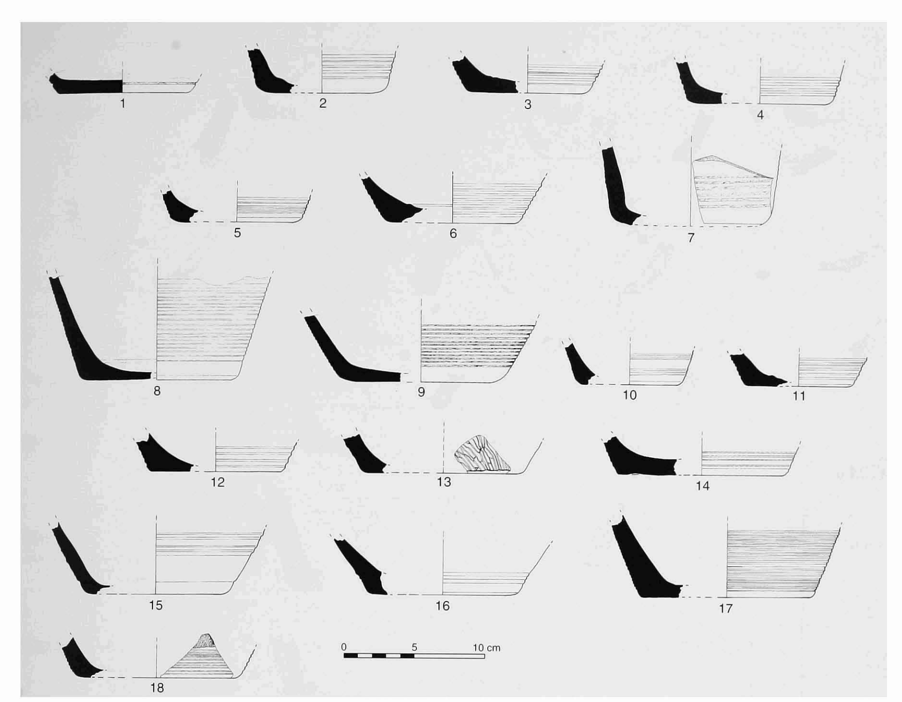


Plate 150.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	9855	Base	287	Light red paste 10 R 6/6; fabric 1.
2	11307	Base	008	Red paste 10 R 4/8; fabric 1.
3	2610 2533	Base	082	Light red paste 10 R 6/6; fabric 1.
4	623	Base	011	Light red paste 2.5 YR 6/8; fabric 1.
5	11341	Base	007	Light red paste 2.5 YR 7/6; fabric 1.
6	15702	Base	008	Light red paste 10 R 6/6; fabric 1.
7	1253	Base	047	Pale red paste 10 R 6/4; burnished ext.; fabric 2.
8	7813	Base	181	Light red paste 10 R 6/6; fabric 2.
9	9758	Base	276	Pale red paste 10 R 6/3; fabric 1.
10	17058	Base	287	Light red paste 10 R 6/6; fabric 2.
11	1305	Base	052	Red paste 10 R 5/8; horizontal combing ext.; fabric 1.
12	7260	Base	165	Pale red paste 10 R 6/4; fabric 1.
13	7257	Base	165	Pale red paste 10 R 6/4; fabric 1.
14	9772	Base	276	Light red paste 10 R 6/8; fabric 1.
15	7810	Base	181	Light red paste 10 R 6/8; fabric 1.
16	9990	Base	311	Light red paste 10 R 6/8; fabric 1.
17	11241	Base	218	Red paste 10 R 5/6; fabric 1.
18	7220	Base	165	Light red paste 10 R 6/8; fabric 1.
19	9766	Base	276	Light reddish brown paste 2.5 YR 7/4; fabric 2.
20	6974	Base	165	Light red paste 10 R 6/8; fabric 2.



STRATUM 6

Plate 151.

Number	Reg. Number	Object	Locus N°	Description
1	11355	Base	008	Weak red paste 10 R 5/4; horizontal incision ext.; fabric 2.
2	7233	Base	165	Light red paste 2.5 YR 7/6; horizontal combing ext.; fabric 2.
3	7802	Base	181	Light red paste 2.5 YR 7/6; horizontal combing ext.; fabric 2.
4	7246	Base	165	Light red paste 10 R 6/6; horizontal combing ext.; fabric 2.
5	6984	Base	156	Weak red paste 10 R 5/4; horizontal combing ext.; fabric 1.
6	7230	Base	165	Light red paste 10 R 6/8; horizontal combing ext.; fabric 2.
7	553	Base	007	Light red paste 10 R 6/6; horizontal combing ext.; fabric 1.
8	655	Base	008	Red paste 10 R 5/6; horizontal combing ext.; fabric 1.
9	17055	Base	008	Red paste 10 R 6/4; horizontal combing ext.; fabric 1.
10	9870	Base	287	Red paste 10 R 5/6; horizontal combing ext.; fabric 2.
11	10677	Base	265	Light red paste 2.5 YR 6/8; horizontal combing ext.; fabric 2.
12	9866	Base	287	Light red paste 10 R 6/8; horizontal combing ext.; fabric 2.
13	7837	Base	181	Light red paste 10 R 6/6; pattern combing ext.; fabric 1.
14	7768	Base	181	Reddish yellow paste 5 YR 7/6; horizontal combing ext.; fabric 2.
15	7226	Base	165	Light red paste 10 R 6/6; horizontal combing ext.; fabric 1.
16	7203	Base	165	Light red paste 10 R 6/8; horizontal incisions ext.; fabric 2.
17	7368	Base	175	Pale red paste 10 R 6/4; horizontal combing ext.; fabric 1.
18	7391	Base	175	Light red paste 10 R 6/8; horizontal combing ext.; fabric 2.

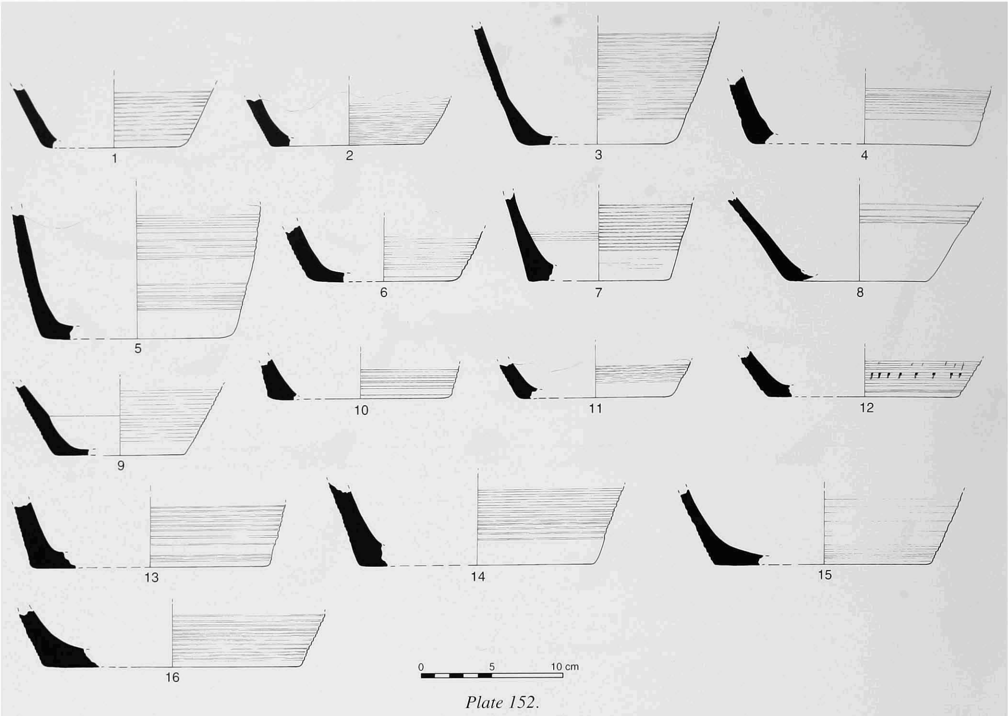
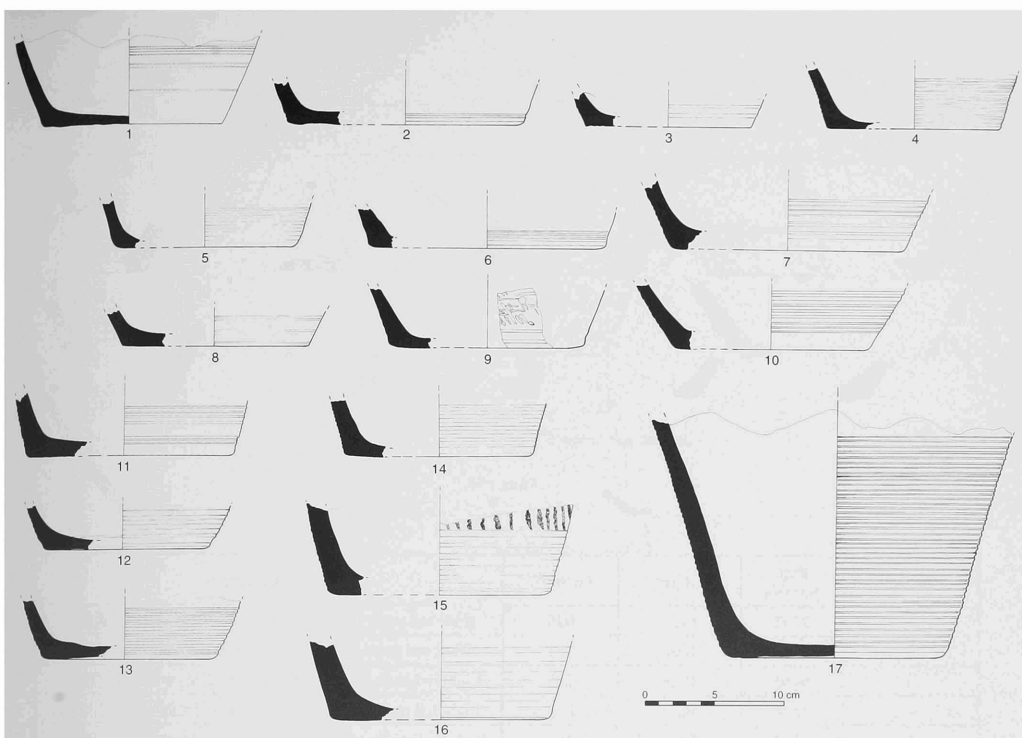


Plate 152.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	2595	Base	082	Pale red paste 10 R 6/4; horizontal combing ext.; fabric 2.
2	1501	Base	053	Pale red paste 10 R 6/4; horizontal combing ext.; fabric 1.
3	2580	Base	082	Reddish yellow paste 5 YR 7/6; horizontal combing ext.; fabric 2.
4	7789	Base	181	Pale red paste 10 R 6/2; horizontal combing ext.; fabric 2.
5	1219	Base	047	Pale red paste 10 R 6/4; horizontal combing ext.; fabric 2.
6	1416	Base	052	Reddish grey paste 10 R 6/1; horizontal combing ext.; fabric 2.
7	1232	Base	047	Light red paste 2.5 YR 7/6; horizontal combing ext.; fabric 2.
8	2596	Base	082	Light red paste 10 R 6/6; horizontal combing ext.; fabric 1.
9	2775	Base	076	Light reddish brown paste 2.5 YR 6/4; horizontal combing ext.; fabric 1.
10	7839	Base	181	Light red paste 2.5 YR 7/6; horizontal combing ext.; fabric 2.
11	1212	Base	047	Light red paste 10 R 6/6; horizontal combing ext.; fabric 2.
12	7210	Base	165	Pale red paste 10 R 6/4; horizontal combing ext.; fabric 1.
13	7777	Base	181	Reddish yellow paste 5 YR 7/6; horizontal combing ext.; fabric 2.
14	7765	Base	181	Pale red paste 10 R 6/4; horizontal combing ext.; fabric 2.
15	1293	Base	052	Pale red paste 10 R 6/4; horizontal combing ext.; fabric 2.
16	2607	Base	082	Light red paste 10 R 6/6; horizontal combing ext.; fabric 1.



STRATUM 6

Plate 153.

Number	Reg. Number	Object	Locus N°	Description
1	11388	Base	008	Reddish grey paste 10 R 5/1; horizontal combing ext.; fabric 1.
2	7376	Base	175	Light red paste 10 R 6/8; horizontal combing ext.; fabric 1.
3	1235	Base	047	Light red paste 10 R 6/8; horizontal combing ext.; fabric 1.
4	1375	Base	052	Light red paste 10 R 6/6; horizontal combing ext.; fabric 1.
5	1388	Base	052	Light red paste 10 R 6/6; horizontal combing ext.; fabric 1.
6	7788	Base	181	Light red paste 10 R 6/6; horizontal combing ext.; fabric 1.
7	7823	Base	181	Light red paste 10 R 6/6; horizontal combing ext.; fabric 1.
8	1288	Base	052	Weak red paste 10 R 5/4; horizontal combing ext.; fabric 1.
9	1390	Base	052	Light red paste 10 R 6/8; pattern combing ext.; fabric 1.
10	7770	Base	181	Weak red paste 10 R 5/3; horizontal combing ext.; fabric 1.
11	7779	Base	181	Reddish yellow paste 5 YR 6/6; horizontal combing ext.; fabric 2.
12	1374	Base	052	Pale red paste 10 R 6/3; horizontal combing ext.; fabric 2.
13	1398	Base	052	Light red paste 10 R 6/6; horizontal combing ext.; fabric 1.
14	3037	Base	081	Reddish grey paste 10 R 5/1; horizontal combing ext.; fabric 1.
15	11389	Base	011	Pale red paste 10 R 6/6; horizontal and vertical combing ext.; fabric 1.
16	1252	Base	047	Pale red paste 10 R 6/6; horizontal combing ext.; fabric 1.
17	1576	Base	093	Weak red paste 10 R 5/2; horizontal combing ext.; fabric 1.

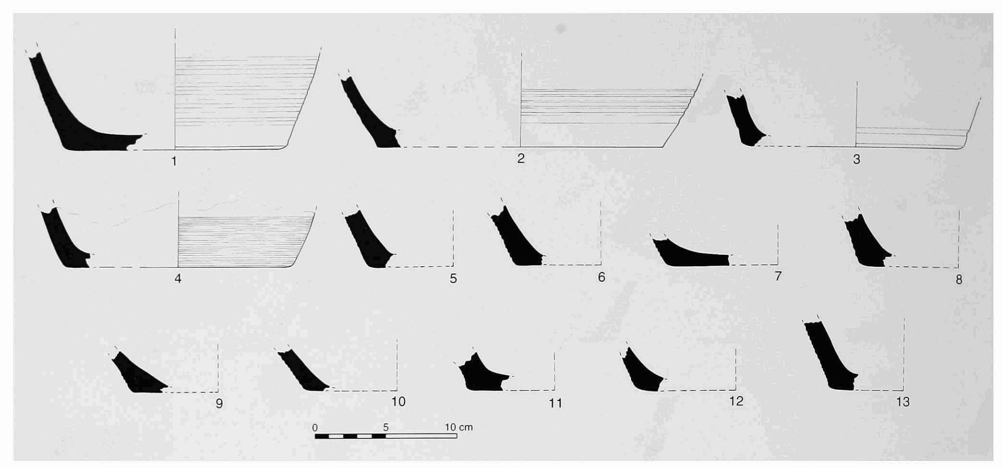


Plate 154.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	2793	Base	076	Pale red paste 10 R 6/4; horizontal combing ext.; fabric 2.
2	7764	Base	181	Weak red paste 10 R 5/2; horizontal combing ext.; fabric 2.
3	9466	Base	265	Light red paste 2.5 YR 6/8; horizontal incisions ext.; fabric 2.
4	1504	Base	053	Light red paste 2.5 YR 7/6; horizontal combing ext.; fabric 2.
5	7831	Base	181	Reddish grey paste 10 R 5/1; horizontal combing ext.; fabric 2.
6	7816	Base	181	Light reddish brown paste 2.5 YR 7/4; horizontal combing ext.; fabric 2.
7	7276	Base	165	Light red paste 10 R 6/6; horizontal combing ext.; fabric 2.
8	7786	Base	181	Light red paste 10 R 6/6; horizontal combing ext.; fabric 2.
9	7815	Base	181	Pale red paste 10 R 6/4; horizontal combing ext.; fabric 2.
10	7248	Base	165	Pale red paste 10 R 6/3; horizontal combing ext.; fabric 1.
11	7247	Base	165	Light reddish brown paste 2.5 YR 7/4; horizontal combing ext.; fabric 2.
12	7283	Base	165	Light red paste 10 R 6/6; horizontal combing ext.; fabric 2.
13	7379	Base	175	Light red paste 10 R 6/8; horizontal combing ext.; fabric 2.

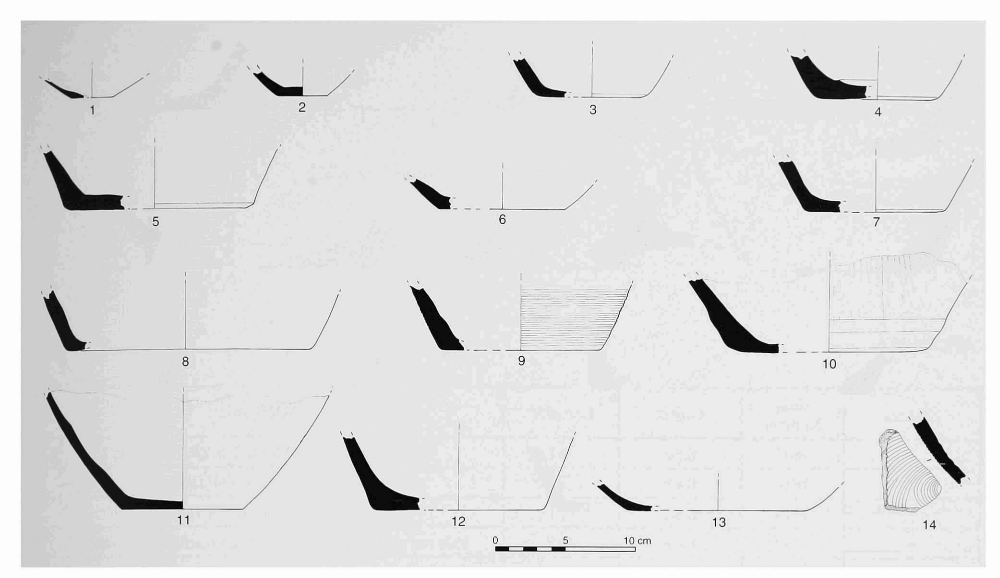


Plate 155.

STRATUM 6

Number	Reg. Number	Object	Locus Nº	Description
1	2794	Base	076	Light red paste 2.5 YR 6/6; fabric 2.
2	2790	Base	076	Pale red paste 10 R 6/4; fabric 1.
3	7265	Base	165	Light red paste 10 R 6/6; fabric 1.
4	6982	Base	156	Light red paste 10 R 6/8; fabric 2.
5	6966	Base	156	Light red paste 10 R 6/8; fabric 1.
6	2785	Base	076	Light red paste 10 R 6/6; burnished ext.; fabric 1.
7	2787	Base	076	Pale red paste 10 R 6/6; fabric 1.
8	7385	Base	175	Light red paste 10 R 6/8; fabric 1.
9	2600 2608	Base	082	Pale red paste 10 R 6/4; horizontal combing ext.; fabric 2.
10	2784	Base	076	Light red paste 2.5 YR 7/6; vertical combing ext.; fabric 1.
11	2767	Base	076	Red paste 10 R 5/8; diagonal burnishing ext.; fabric 1.
12	1399	Base	052	Light red paste 10 R 6/6; fabric 2.
13	1380	Base	052	Pale red paste 10 R 6/4; fabric 1.
14	11300	Base	008	Red paste 10 R 5/6; pattern combing ext.; fabric 2.

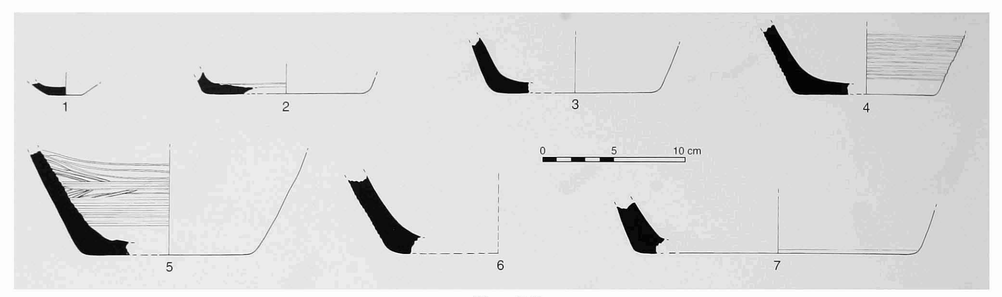


Plate 156.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	7842	Base	181	Light reddish brown paste 2.5 YR 7/4; fabric 2.
2	7814	Base	181	Pale red paste 10 R 6/4; fabric 1.
3	7774	Base	181	Light red paste 10 R 6/8; fabric 2.
4	7199	Base	165	Pale red paste 10 R 6/4; horizontal combing ext.; fabric 1.
5	7237	Base	165	Light red paste 10 R 6/6; horizontal combing int.; fabric 1.
6	7224	Base	165	Light red paste 10 R 6/6; horizontal combing ext.; fabric 2.
7	7780	Base	181	Light red paste 10 R 6/8; fabric 2.

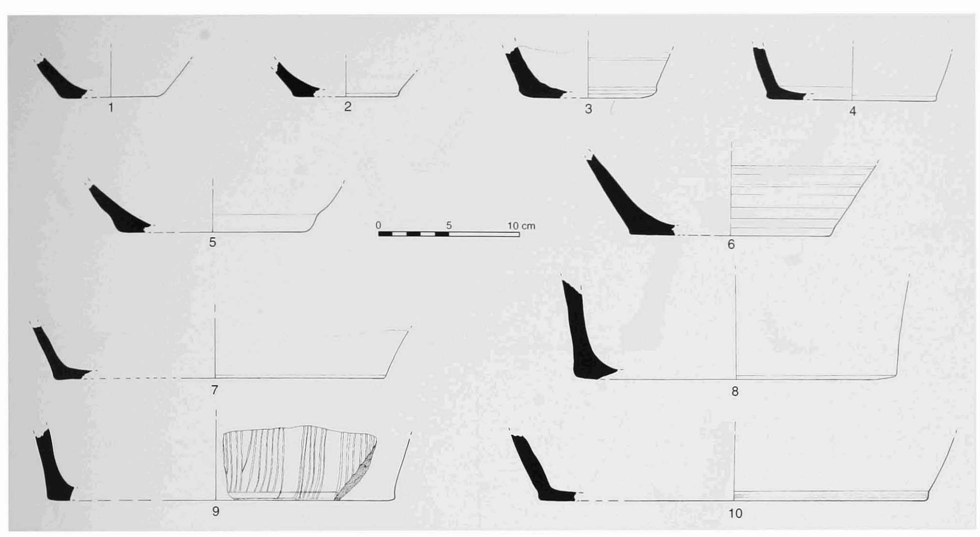


Plate 157a.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	7380	Base	175	Reddish grey paste 10 R 5/1; fabric 1.
2	11215	Base	218	Reddish yellow paste 5 YR 7/6; red slip ext.; fabric 2.
3	1231	Base	047	Light red paste 10 R 6/8; horizontal incisions ext.; fabric 2.
4	11390	Base	011	Light red paste 10 R 6/6; fabric 1.
5	7241	Base	165	Light reddish brown paste 2.5 YR 6/4; fabric 2.
6	7365	Base	175	Light reddish brown paste 2.5 YR 7/4; horizontal combing ext.; fabric 2.
7	11411	Base	008	Light red paste 10 R 6/6; fabric 1.
8	628	Base	011	Light red paste 10 R 6/8; fabric 2.
9	7366	Base	175	Weak red paste 10 R 5/3; vertical combing ext.; fabric 2.
10	1307	Base	052	Light red paste 10 R 6/6; fabric 1.

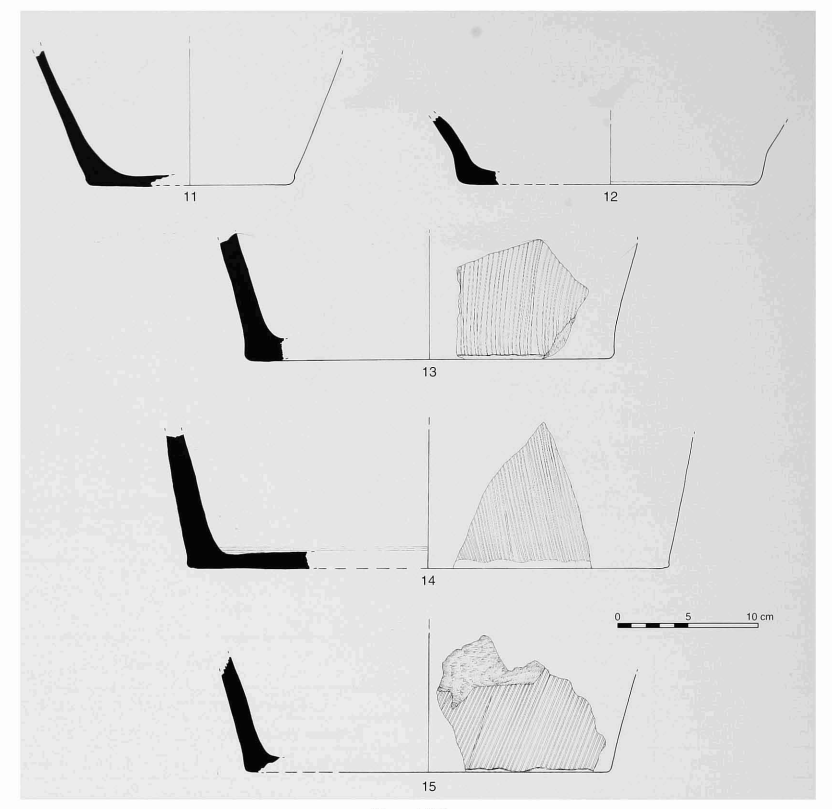


Plate 157b.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
11	11254 11248 11252	Base	218	Light reddish brown paste 2.5 YR 6/4; fabric 2.
12	7801	Base	181	Light red paste 10 R 6/8; fabric 1.
13	1205	Base	047	Weak red paste 10 R 5/4; vertical combing ext.; fabric 2.
14	1497	Base	052	Light red paste 10 R 6/8; diagonal combing ext.; fabric 2.
15	11224	Base	011	Light reddish brown paste 2.5 YR 7/4; diagonal combing ext.; fabric 1.

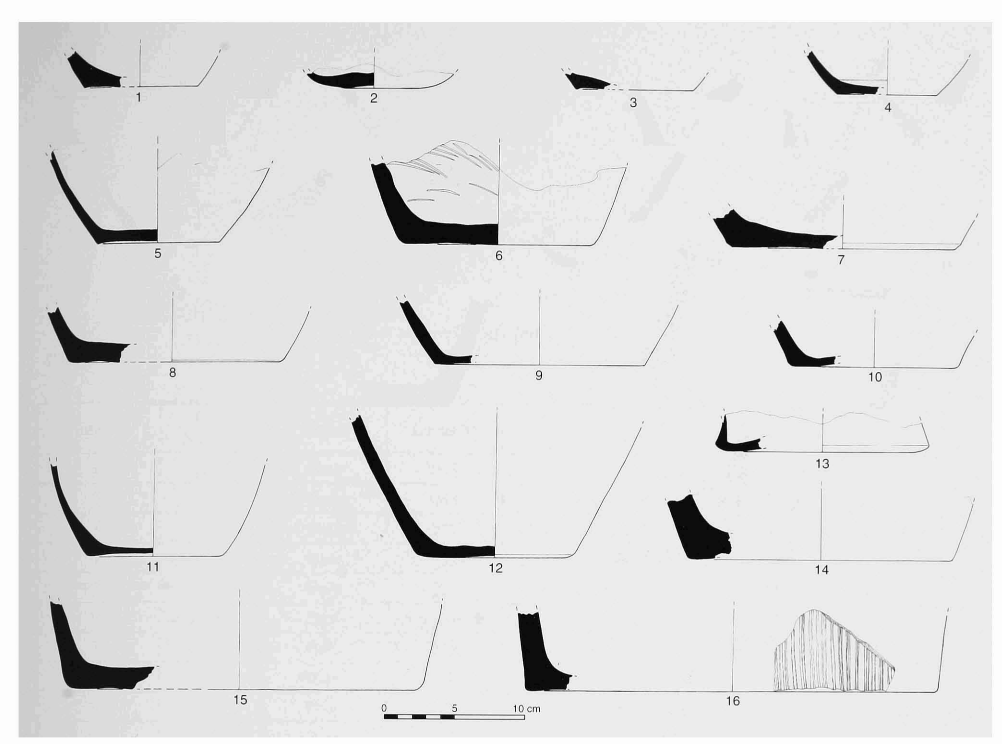


Plate 158.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	7377	Base	175	Light red paste 10 R 6/6; fabric 1.
2	1341	Base	052	Light red paste 10 R 6/8; fabric 1.
3	11303	Base	008	Light red paste 10 R 6/8; fabric 1.
4	1201	Base	047	Light red paste 10 R 6/6; fabric 1.
5	1533	Base	046	Weak red paste 10 R 5/3; fabric 2.
6	7760	Base	181	Pale red paste 10 R 6/2; fabric 2.
7	6965	Base	156	Light red paste 10 R 6/8; fabric 1.
8	7367	Base	175	Pale red paste 10 R 6/4; fabric 2.
9	1313	Base	052	Light red paste 10 R 6/6; fabric 1.
10	2619	Base	082	Red paste 10 R 5/6; fabric 1.
11	9983	Base	311	Light red paste 2.5 YR 7/6; fabric 2.
12	9985 9986 9987	Base	311	Light red paste 10 R 6/8; fabric 2.
13	1245	Base	047	Light red paste 2.5 YR 7/6; fabric 2.
14	652	Base	008	Light red paste 2.5 YR 7/6; red slip ext.; fabric 5.
15	7195	Base	165	Light red paste 10 R 6/8; fabric 1.
16	1287	Base	052	Pale red paste 10 R 6/4; vertical combing ext.; fabric 1.

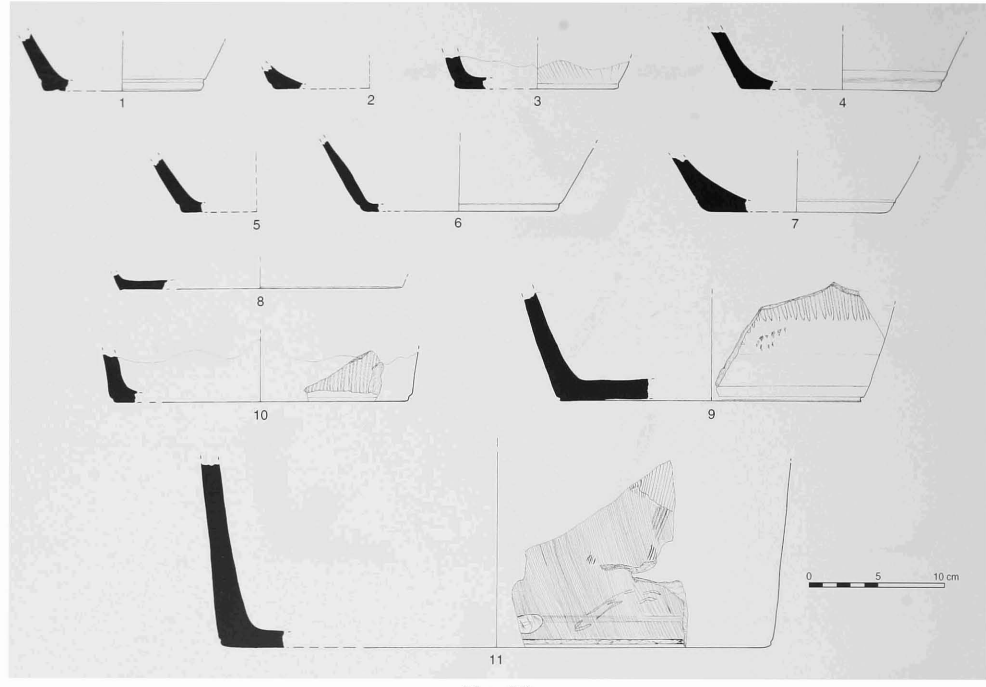


Plate 159.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	7772	Base	181	Light red paste 10 R 6/8; fabric 1.
2	7273	Base	165	Light red paste 10 R 6/6; fabric 2.
3	1512	Base	053	Light red paste 10 R 6/8; diagonal combing ext.; fabric 1.
4	7200	Base	165	Light red paste 10 R 6/6; fabric 2.
5	7805	Base	181	Light red paste 10 R 6/8; fabric 1.
6	1417	Base	052	Red paste 10 R 5/6; fabric 1.
7	7834	Base	181	Light red paste 10 R 6/6; horizontal incisions ext.; fabric 2.
8	536	Base	006	Red paste 10 R 5/6; fabric 1.
9	552	Base	007	Red paste 10 R 5/8; vertical combing ext.; fabric 1.
10	1230	Base	047	Light red paste 10 R 6/8; vertical combing ext.; fabric 2.
11	1444	Base	052	Red paste 10 R 5/6; pattern combing ext.; fabric 1.

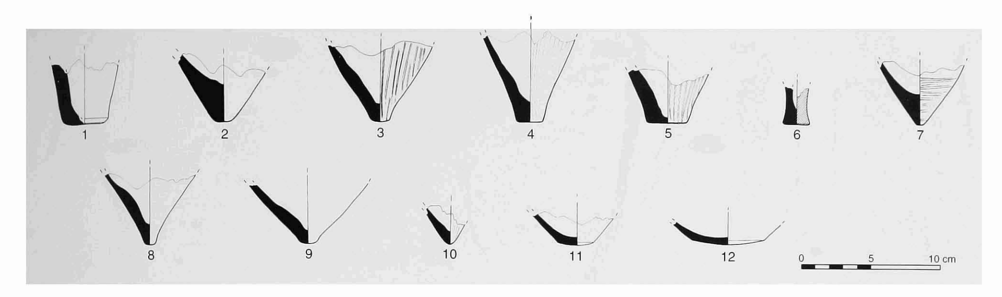


Plate 160.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	3602	Base	093	Red paste 10 R 5/6; fabric 1.
2	781	Base	043	Light reddish brown paste 2.5 YR 7/4; fabric 2.
3	1255	Base	047	Light red paste 2.5 YR 7/6; vertical burnishing ext.; fabric 2.
4	1371	Base	052	Light red paste 10 R 6/6; vertical burnishing ext.; fabric 1.
5	1355	Base	052	Weak red paste 10 R 5/4; vertical combing ext.; fabric 2.
6	17057	Base	181	Light red paste 10 R 6/5; red slip ext.; fabric 1.
7	1241	Base	047	Light reddish brown paste 2.5 YR 7/4; fabric 2.
8	4294	Base	038	Reddish grey paste 10 R 5/1; vertical burnishing ext.; fabric 1.
9	7797	Base	181	Red paste 10 R 5/6; vertical burnishing ext.; fabric 1.
10	808	Base	043	Red paste 10 R 5/6; burnishing ext.; fabric 1.
11	554	Base	007	Light red paste 10 R 6/6; fabric 2.
12	1362	Base	052	Red paste 10 R 6/2; fabric 1.

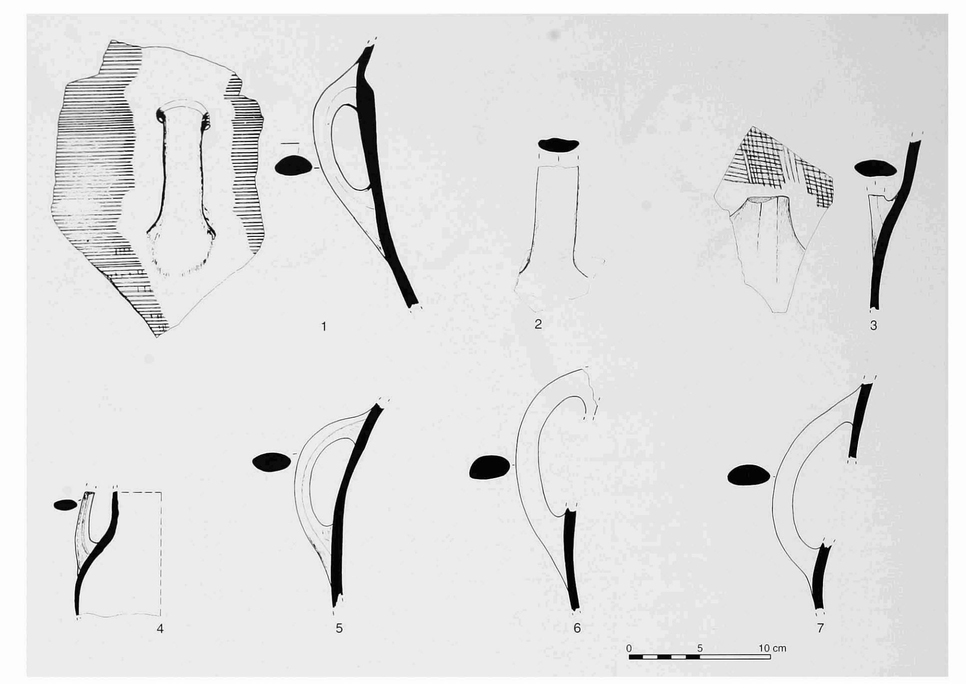


Plate 161.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	17064	Handle	082	Light red paste 2.5 YR 6/6; horizontal combing ext.; fabric 2.
2	1376	Handle	052	Light red paste 10 R 6/6; fabric 1.
3	3586	Handle	093	Light red paste 10 R 6/8; net burnishing ext.; fabric 1.
4	1530	Handle	043	Weak red paste 10 R 5/3; fabric 1.
5	9984	Handle	311	Light red paste 10 R 6/6; fabric 1.
6	11250	Handle	218	Light reddish brown paste 2.5 YR 6/4; fabric 2.
7	11255	Handle	218	Light reddish brown paste 2.5 YR 6/4; fabric 2.

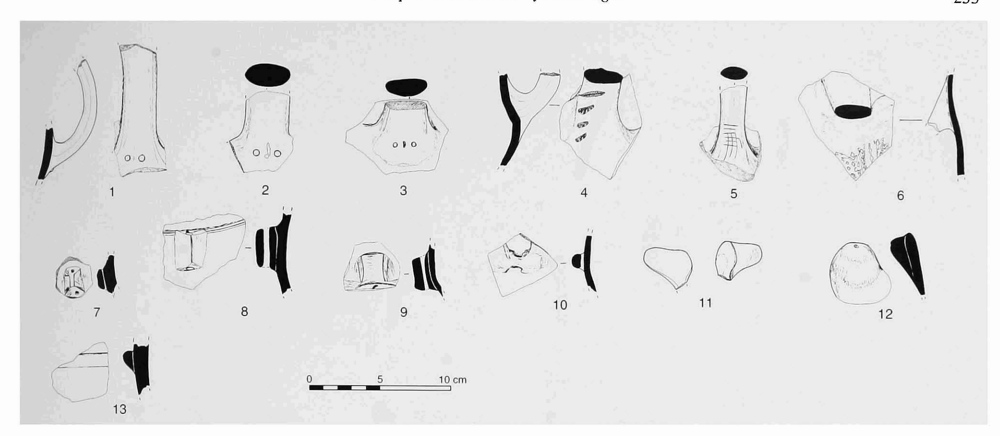


Plate 162.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	11391	Handle	011	Light red paste 10 R 6/6; two rounded applied pieces of clay; fabric 2.
2	7426	Handle	175	Light red paste 10 R 6/6; two rounded applied pieces of clay and one vertical incision in the middle; fabric 2.
3	7125	Handle	165	Light red paste 2.5 YR 7/6; two rounded applied piece of clay and one vertical incision in the middle; fabric 2.
4	650	Handle	011	Light red paste 10 R 6/8; 4 horizontal diagonal incisions; fabric 1 (**photo 24**, p. 74).
5	1389	Handle	052	Red paste 10 R 5/8; brown slip ext.; vertical burnishing and net incisions ext.; fabric 1.
6	629	Handle	011	Red paste 10 R 5/8; pattern combing ext.; fabric 1.
7	10685	Handle	265	Pinkish grey paste 5 YR 7/2; fabric 2.
8	6981	Handle	156	Light red paste 10 R 6/8; fabric 3.
9	7745	Handle	181	Light red paste 2.5 YR 7/6; fabric 2.
10	658	Handle	008	Light red paste 10 R 6/6; fabric 1.
11	7187	Handle	165	Pale red paste 10 R 6/4; fabric 1.
12	7128	Handle	165	Light red paste 2.5 YR 7/6; fabric 2.
13	7147	Handle	165	Light red paste 2.5 YR 7/6; fabric 2.

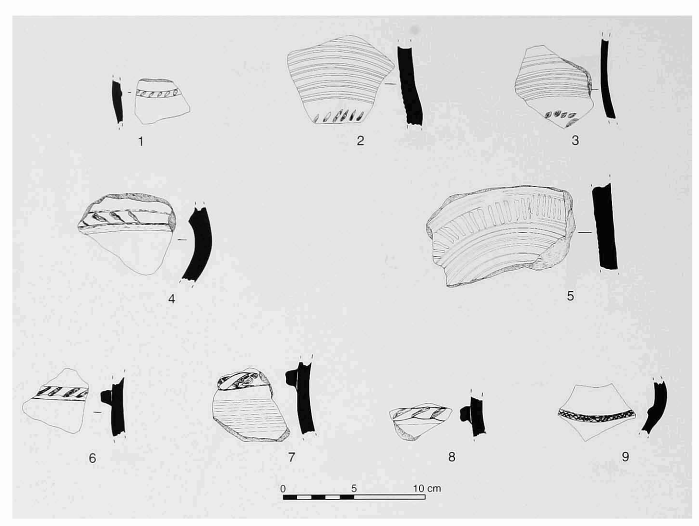


Plate 163.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	11230	Body sherd	218	Red paste 10 R 5/6; ridge with oval incisions ext.; fabric 2.
2	7118	Body sherd	165	Light red paste 2.5 YR 7/6; horizontal combing and diagonal incisions; fabric 2.
3	7123	Body sherd	165	Light red paste 10 R 6/8; horizontal combing and oval incisions; fabric 1
4	7413	Body sherd	175	Light red paste 10 R 6/8; ridge with diagonal incisions; fabric 1.
5	1167	Body sherd	046	Light red paste 10 R 6/8; vertical and horizontal incisions; fabric 1.
6	7262	Body sherd	165	Light red paste 10 R 6/6; ridge with oval incisions; fabric 1.
7	7181	Body sherd	165	Light red paste 2.5 YR 7/6; ridge with oval incisions; fabric 2.
8	9503	Body sherd	276	Light red paste 10 R 6/8; ridge with oval incisions; fabric 2.
9	7736	Body sherd	181	Pale red paste 10 R 6/4; horizontal burnishing ext. and ridge with plaited design; fabric 1.

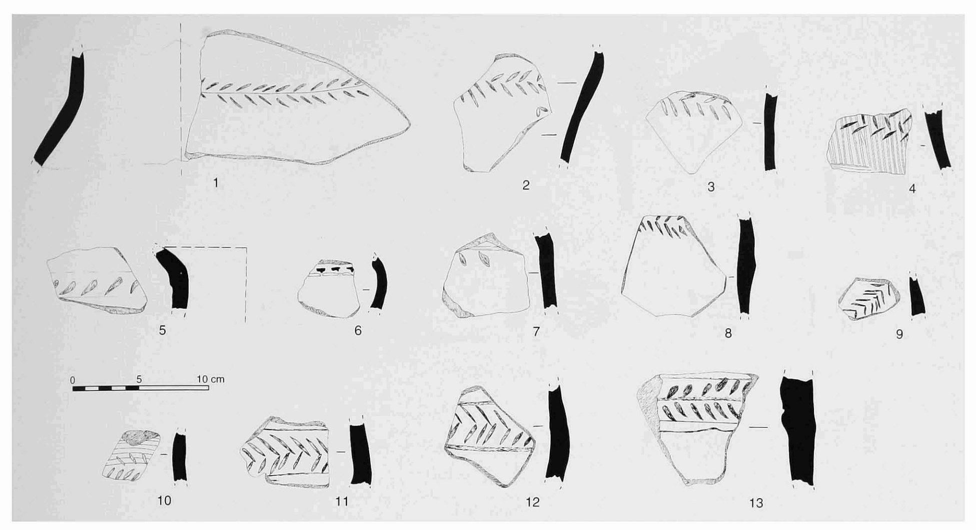


Plate 164.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	1470	Body sherd	053	Light red paste 10 R 6/8; herringbone design; fabric 2.
2	1221	Body sherd	047	Light red paste 10 R 6/8; herringbone design; fabric 1.
3	1225	Body sherd	047	Red paste 10 R 5/8; herringbone design; fabric 1.
4	7163	Body sherd	165	Reddish yellow paste 5 YR 7/6; combing ext.; and herringbone design; fabric 1.
5	1302	Body sherd	052	Reddish grey paste 2.5 YR 6/1; oval incisions; fabric 2.
6	7439	Body sherd	175	Light red paste 10 R 6/6; punctured incisions; fabric 2.
7	1471	Body sherd	053	Light red paste 10 R 6/8; oval incisions; fabric 1.
8	7409	Body sherd	175	Light red paste 10 R 6/8; herringbone design; fabric 1.
9	7435	Body sherd	175	Light red paste 2.5 YR 7/6; herringbone design; fabric 2.
10	6994	Body sherd	156	Light red paste 10 R 6/6; herringbone design; fabric 1.
11	7719	Body sherd	181	Pale red paste 10 R 6/4; herringbone design; fabric 1.
12	7720	Body sherd	181	Weak red paste 10 R 5/4; herringbone design; fabric 1.
13	1426	Body sherd	052	Red paste 10 R 5/6; herringbone design on ridge; fabric 1.

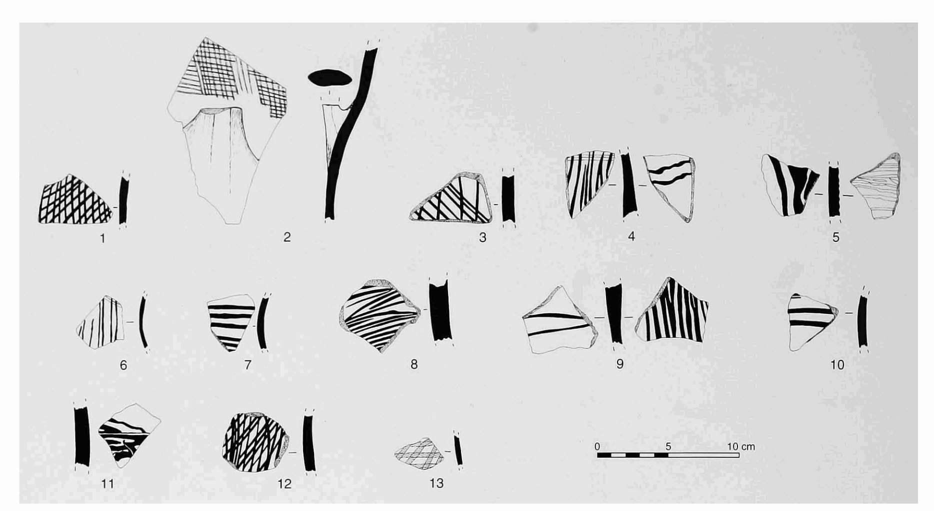


Plate 165.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	7424	Body sherd	175	Light red paste 10 R 6/6; black paint in a net pattern; fabric 1.
2	3594	Body sherd	093	Red paste 10 R 5/6; black paint in a net pattern; fabric 1.
3	7432	Body sherd	175	Light red paste 10 R 6/8; black paint in a net pattern; fabric 1.
4	1304	Body sherd	052	Red paste 10 R 5/6; black paint int. and ext.; fabric 1.
5	1297	Body sherd	052	Red paste 10 R 5/6; black paint int. and ext.; fabric 1.
6	1505	Body sherd	053	Light red paste 10 R 6/6; black paint ext.; fabric 1.
7	8197	Body sherd	210	Light red paste 2.5 YR 6/8; black paint ext.; fabric 2.
8	7694	Body sherd	181	Light red paste 10 R 6/8; black paint ext.; fabric 1.
9	1199	Body sherd	047	Red paste 10 R 5/8; black paint int. and ext.; fabric 1.
10	1227	Body sherd	047	Light red paste 2.5 YR 7/6; horizontal black paint ext.; fabric 2.
11	9477	Body sherd	265	Light red paste 2.5 YR 7/8; black paint ext.; fabric 2.
12	7739	Body sherd	181	Pale red paste 10 R 6/4; burnished net pattern ext.; fabric 1.
13	7752	Body sherd	181	Light red paste 10 R 6/8; burnished net pattern ext.; fabric 1.

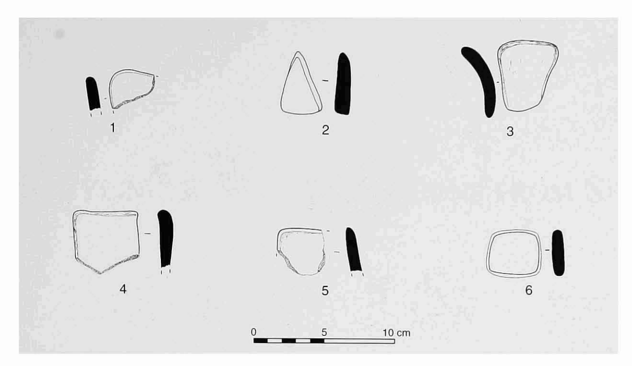


Plate 166.

STRATUM 6

Number	Reg. Number	Object	Locus N°	Description
1	7737	Triangular piece of pottery	181	Light red paste 10 R 6/8; fabric 1.
2	11299	Triangular piece of pottery	008	Red paste 10 R 5/6; fabric 1.
3	7704	Square piece of pottery	181	Pale red paste 10 R 6/4; fabric 2.
4	7700	Square piece of pottery	181	Light red paste 10 R 6/6; fabric 1.
5	7182	Square piece of pottery	165	Light reddish brown paste 2.5 YR 7/4; fabric 2.
6	11297	Square piece of pottery	008	Red paste 10 R 4/8; fabric 2.

Chapter V. Cylinder Seal Impressions from Sidon

Twenty two cylinder seal impressions, all dating to the Early Bronze Age were uncovered in Sidon, during the first season of excavation. These impressions appear on fragments of heavy pottery jars. About half the sherds are of a red fabric, oxidized with a black core, indicating reduction. All the impressions are rolled horizontally. Two examples (**Pl. 171: 20; 172: 22**) were impressed twice, once horizontally, and once perpendicularly.[1] Other sherds bearing an impression are also vertically burnished (**Pl. 167: 5; 170: 18; 171: 19**). The dimensions of the seals are based on complete impressions: the height varies between an average size of 2.7 cm to a larger 4.5 cm. This range encompasses the most common group amongst the impressions with a non-geometric design.

In an attempt to analyse the production technique of the Sidon seals, one must first take into account the way they were carved.[2] Images are large impressions, generally deeply carved and are in bold relief. There is an obvious tendency towards maximal filling of the space with the actual figures filling the impression (**Pl. 169: 13; 170: 18**). The scale of the drawings and photographs is 2:1 unless otherwise stated. The stratigraphic location of each impression is given, bearing in mind that the pot sherds on which these impressions appear are stratigraphically "mobile" and can either pre-date or post-date their original location.

THE MOTIFS

Geometric

The *net pattern* is the most popular and widespread family of geometric designs[3] (**Pl. 167: 1-4; 168; 169: 11, 12; 170: 15, 16**). Most of the Sidon impressions find clear parallels in impressions of similar seals previously unearthed in Early Bronze Age contexts at Byblos and in Palestine.[4] Six of these impressions were found in an EB II context and seven in EB III levels.[5]

Also common is the *running or interlocked spiral*. The running spiral motif found at Sidon in EB II B (**Pl. 167: 5**) is similar to that found at Lerna in Greece in the Early Helladic period.[6] A possible connection was noted by Ben-Tor between the Palestinian geometric seal impressions and those from Greece.[7]

A wide stripe, decorated with grooves in a herringbone pattern is used as the upper and lower borders of a design (**Pl. 171: 19**) as well as an element dividing the field[8] (**Pl. 172: 21**).

Animal classification

The lion

The most popular animal found at Sidon is the lion[9] (**Pl. 169: 13; 170: 14, 18; 171: 20; 172**). Three seal impressions

1 - See M. Dunand, 1945, fig. 21, at Byblos for example; A. Ben-Tor, 1978, p. 42.

2 - A. Ben-Tor, 1978, p. 40.

3 - P. de Miroschedji, 1997, p. 197.

4 - A. Ben-Tor, 1978, fig. 1, 5, 6, 7, p. 63.

5 - Not all impressions with a net design were drawn as some were found too fragmented.

6 - M. H. Wiencke, 1970, p. 105: "the cutter rarely went to the trouble of creating a true running spiral..."; pl. 27, 5881 (204-206); S. W. Manning, 1995, p. 150 and A. H. Joffe, 2001, p. 368: "The Early Helladic II A period, or Korakan culture, and Lerna III specifically should now be dated to *ca.* 2500-2400 BC. some centuries after the beginning of the Levantine EB III".

7 - See A. H. Joffe, 2001, p. 368 and p. 6 in this article.

8 - A. Ben-Tor, 1978, p. 55, type II Bb-1 and II Bb-2; P. Amiet, 1955, p. 407-408.

9 - The lion was probably quite common in ancient Palestine; P. Wapnish & B. Hesse, 2000, p. 432, 433; A. Caubet, 1986, p. 302-303; P. Wapnish, 1997, p. 361, 362.

depict the animal striding from right to left (**Pl. 169: 13; 170: 14, 18**). These impressions, found in the same EB III context, are very similar but do not belong to the same seal. Animal limbs are, in both impressions, used as space fillers in a manner rarely found in Palestine.[10] The lion is crudely executed with a heavy neck and a tail bent almost parallel over its hindquarters. The animal's legs are thickened. These two seals are very crude, and are, with hatched bands on the body of the lions, reminiscent of Gable seals.[11]

Horned animals (caprids) /lion

The "classical" procession of animals commonly found in Palestine, Mesopotamia and Susa or impressions of *tête-bêche* processing is only found on EB III B impressions (**Pl. 171: 19; 172: 22**). Only one impression of horned animals in a naturalistic arrangement was found. One of the animals on seal **Pl. 171: 19**, is portrayed upside down with its rear "legs" forming another animal's foreparts.[12] The *tête-bêche* pattern is featured with the use of animal protomes in reverse attachment of animal parts. This pattern is commonly found at Byblos as well as on one seal from the *École Biblique de Jérusalem*[13] collection. The head of a bird (**Pl. 171: 19**) is used as a space filler. Birds are not unusual motifs, and representations are found on some Palestinian seals[14] as well as on some from Byblos.[15]

The appearance of the lion and the horned animal side by side found only once at Sidon, (**Pl. 172: 22**) is a common occurrence at Byblos and in Palestine during the 3rd millennium, with the usual theme of opposition; creatures symbolizing strength on one hand and delicacy on the other.[16] A third creature, the fish (**Pl. 172: 22**), is used as a space filler alongside the lion and the horned animal in a *tête-bêche* arrangement.[17]

THE HUMAN

Contrary to Palestine and to Byblos, it is not only the horned animal and the lion[18] that is the favoured pair at Sidon but the lion (sometimes only the protomes)[19] (**Pl. 170: 18; 171: 20**) and the human (**Pl. 172: 21**). These are depicted in different stylistic ways.

Half-human half-animal composite creatures

1. The lower portion of the body extends in a straight rectangular flattened stripe with an arm stretched upward (**Pl. 170: 18**). It remains difficult to identify the bird-like figure facing this creature.

2. Visible from the waist up[20] (**Pl. 171: 20**), in a manner popular in Palestine.[21] In this case a human with the triangular shaped head of an animal has an arm stretched upwards.[22] This reluctance to portray the human face is characteristic of some early societies. The stylization may originate from a fear of portraying human beings.[23] Thus the face resembles an animal.[24] Other comparable examples usually show a human with the head or mask of a caprid.[25] However, this is not the case of the Sidon seal impressions where the human wears another type of animal mask. This question of animals looking human and humans not being easily distinguished from animals was discussed by Barnett in 1966,[26] in his article "Homme masqué ou dieu-ibex?" (masked figures or ibex-like deities). Barnett classifies the impressions as cult scenes. At Sidon these figures are distinguished from those discussed by Barnett in that the figures are not dressed as horned animals. However, the principle of symbiosis between man and animal remains the same.

Special attention should be given to the position of the arm of the composite half-human half-animal creatures on seal impressions (**Pl. 170: 18** and **Pl. 171: 20**). In both cases the arm is stretched upward in a manner very similar to that on a later cylinder seal (3000-2334 BC) published by P. Amiet.[27] Two entwined lions are depicted on this cylinder seal, with tails bent over the back and "a front leg, extending upward like an arm". It remains very difficult to interpret the meaning of this extended arm or to draw any definitive conclusions from it. It could nevertheless be compared with leonine figures[28] of the Proto-Elamite period with raised paws supporting mountains in between which grows a tree.[29] This could explain the nature of the lion and other

10 - A. Ben-Tor, 1978, p. 55; For animal limbs as space filler see R. M. Boehmer, 1999, Uruk IV a, abb. 48, A-N (*aus Bereich des Roten Tempels*).
11 - D. M. Matthews, 1997, p. 92.
12 - See D. M. Matthews, 1997, p. 92-93.
13 - M. Dunand, 1945, fig. 21 & fig. 22, c, f; P. Amiet, 1955, pl. 5, 1, p. 407-408; A. Ben-Tor, 1978, pl. 7, 45, II Bb-2.
14 - A. Ben-Tor, 1978, fig. 8, 49. IIC-3; 54. IIC-8; p. 56.
15 - M. Dunand, 1945, fig. 22, f.
16 - I. Cornelius, 1989, p. 55.
17 - A. Ben-Tor, 1978, p. 71-72, the fish is commonly found on the Byblos seals.
18 - A. Ben-Tor, 1978, p. 56.
19 - See M. Dunand, 1945, for examples from Byblos, fig. 22, b.
20 - A. Ben-Tor, 1978, p. 56.
21 - A. Ben-Tor, 1978, p. 56.
22 - On the lion-demons supporting mountains on their raised paws, see P. Amiet, 1980, p. 153; E. Porada, 1950, fig. 6, F-G.
23 - P. Amiet, 1972, p. 37.
24 - A. Ben-Tor, 1992, note 14, p. 155, humans with animals heads; A. H. Joffe, 2001, p. 368: "masks are well attested in the Levantine Neolithic, while specific motifs such as masked individuals seated before structures echo Chalcolithic iconography evident, for example, on Ghassul wall paintings. In other words, southern Levantine iconography could be a local and parallel development..."
25 - A. Ben-Tor, 1992, p. 154: "what looks like a horned animal, but could be a human masquerading as one".
26 - R. D. Barnett, 1966, p. 259-276.
27 - P. Amiet, 1964, p. 188, 190, fig. 1, "Cylinder seal from the upper Djézireh."
28 - E. Porada, 1950, p. 225, fig. 6, f.
29 - P. Amiet, 1956, p. 125-126.

similar creatures of this period typifying primary forces, regarded as cosmic elements responsible for underworld order and stability.[30]

At Sidon the human is also depicted with an oval head (it is not clear if it is a human or animal face), an erect penis probably symbolizing potency, and arms stretched upwards (**Pl. 172: 21**). One hand is depicted with outstretched fingers, while in the other hand he seems to hold a three-stemmed plant.[31] Humans with an extended downward arm, shaped like a plant are found on seal impressions from Giv'at Rabi and Beth Yerah.[32] These impressions are part of the same group distinguished by the depiction of three components: a building (probably a temple), a man and a horned animal (or a human masquerading as an animal). According to Ben-Tor they are connected to a fertility cult.[33] Although this theme is common to the entire ancient Near East, the Sidon composition showing a man with an erect penis and holding a plant-like stem together with the lion[34] is unique.

STRATIGRAPHY AND CHRONOLOGY

Seal impression **Pl. 172: 21** which constitutes a group of its own was uncovered during the 2000 season. It was found at the beginning of the season while clearing trench 1 to proceed with the excavation. It remains difficult to say whether it should be dated to the EB III B level excavated during the previous season in this trench or if it was brought to the spot where it was found, together with the floor fill material.[35]

The net pattern on seal impressions first appears in stratum 3. This design enjoyed a fairly long life span, from the beginning of EB II A to the close of the Early Bronze Age. Another geometric design, the running spiral begins in stratum 4 (EB II B).

The lion is the only animal found in an EB II B level. By the end of the Early Bronze Age (stratum 6), the lion, continuing to be the most popular animal, is still found but this time with a half-human half-animal creature.

Only two impressions (**Pl. 171: 19; 172: 22**) with a row of horned animals in a *tête-bêche* arrangement were found, dating to the EB III B period.

SIGNIFICANCE OF THE GLYPTIC ASSEMBLAGE FROM SIDON

The close connection between the Sidon impressions and those from Byblos with the appearance of the lion and the horned animal side by side has already been underlined: most of Sidon's seal impressions are comparable to Dunand's group 2 where the seals are larger than in group 1, the movement of the animals is more emphasized and the animals are larger. The lion[36] is in both cases the most popular animal in terms of decoration along with the horned animal and the fish as space filler, in a decorative composition common on Giblite impressions. Herringbone bands used as a border or as a dividing field, birds used as filling motifs and *tête-bêche* expanded by the use of animal protomes are also common to both sites. However, despite geographic proximity, the Sidonian production represents an original independent local creation produced by local artisans and although there are close parallels with Byblos, concepts on some seals are different, as is the execution. Glyptic art from Sidon and Byblos cannot be viewed as a unified homogeneous group but rather as the independent production of local schools.

In the overwhelming majority of cases the animals at Sidon are lions but unlike impressions from Byblos and Palestine, a horned animal appears only twice. The style of execution for the majority of the seals from stratum 3 and from stratum 4 at Sidon is bolder with a high relief. Only in stratum 6 (**Pl. 172: 22**) are smaller seals executed in a low relief found. Matthews[37] describes the Byblos glyptic as seals where "decoration is dominant over meaning". This is not the case of the Sidon glyptic where "scenes" appear mainly in stratum 6.[38] These scenes show a degree of affinity with Palestine with the idea of symbiosis of man and animal associated with a fertility cult. The prototypes are however different. This theme is also popular in Mesopotamia. The position of the arm of the half-man half-animal creature on the Sidon impressions shows some affinities with Syria and Mesopotamia but here again only in the idea. It is therefore possible to argue that a comparative examination of seal impressions from Syria, Mesopotamia and Palestine, shows

30 - P. Amiet, 1980, p. 109.

31 - For comparison of the theme, see an impression from the Anu Ziqqurat, White Temple (Uruk IV a), see R. M. Boehmer, 1999, w10133b, p. 98.

32 - A. Ben-Tor, 1992, p. 157, fig. 3 & p. 158, fig. 4.

33 - "The concept of the feeding of the sacred flock" that continued long after the Early Bronze Age, A. Ben-Tor, 1992; see also A. Ben-Tor, 1977, p. 96, on another group of seal impressions; the components of the scene are human figures, structures and horned animals, or human beings disguised as such animals.

34 - A. Ben-Tor, 1978, fig. 21, p. 73, for a comparable lion, n° 12, Byblos n° 14184.

35 - Another similar impression was found in an EB III B context in the 2002 season. This gives an indication for dating the impression found during the 2000 excavation.

36 - D. M. Matthews, 1997, p. 92-93.

37 - D. M. Matthews, 1997, p. 92-93; R. Greenberg, 2001, p. 189, 190, "Ceramic morphology offers little in the way of chronology and dating relies on other considerations such as ceramic fabric and stratigraphic context..."

38 - "Whereas the lower limit for the appearance of the cylinder seal impressions in Byblos is more or less fixed (EB II), this is not so for the upper limit, for there is no data regarding the duration of the impressions' appearance...", A Ben-Tor, 1978, p. 75.

some similarities but not an extended correlation. On the other hand the spiral motif is an indicator of foreign relations with lands as far away as Greece (Lerna).[39]

Many hypotheses have been produced on the function of seal impressions.[40] It has been suggested more recently[41] that the seals correspond to the emergence of a rural exchange system. They constitute marks that in a simple and efficient way are reminders of the provenance or manufacture of goods. Closely related seal designs may indicate a similar product while the less-common seal-impressions may indicate a more valuable commodity.[42]

DISTRIBUTION AND LOCATION

N°	Field N°	Locus	Trench	Stratum/Date	Motifs
1	3772	107	3	3/EB II A	Light red paste 10 R 6/8; fabric 1; net.
2	3658	103	3	3/EB II A	Light red paste 10 R 6/8; fabric 1; net.
3	2904	088	2	4/EB II A	Weak red paste 10 R 5/3; fabric 1; net.
4	2657 2726	085	3	4/EB II A	Light red paste 10 R 6/6; fabric 2; net.
5	1548	044	1	4/EB II B	Light red paste 10 R 6/6; fabric 2; vertical burnishing; running spiral.
6	1549	044	1	4/EB II B	Red paste 10 R 5/8; fabric 1; striding animal. Bird-like figure (Only a very small part of the scene originally portrayed has been preserved).
7	1609	056	2	5/EB II A	Red paste 10 R 5/6; fabric 1; net.
8	2161	077	2	5/EB II A	Weak red paste 10 R 5/2; fabric 1; net.
9	3505	101	5	5/EB II A	Red paste 10 R 5/8; fabric 1; net.
10	2209	075	3	5/EB II A	Light red paste 10 R 6/8; fabric 1; net.
11	3131	091	4	5/EB II A	Light red paste 10 R 6/8; fabric 1; net.
12	2522	080	2	5/EB II A	Red paste 10 R 5/6; fabric 1; net.
13	1589	079	3	5/EB III A	Light red paste 10 R 6/8; fabric 2; burnished ext.; striding lion.
14	1590	079	3	5/EB III A	Light red paste 10 R 6/8; fabric 2; burnished ext.; striding lion.
15	1349	052	1	6/EB II A	Red paste 10 R 5/6; fabric 1; net.
16	11321	011	1	6/EB II A	Light red paste 10 R 6/8; fabric 1; net.
17	1535 a	043	2	6/EB III B	Light red paste 10 R 6/6; fabric 2; leg-like motif (Only a very small part of the scene originally portrayed has been preserved).
18	1535 b	043	2	6/EB III B	Light red paste 10 R 6/8; fabric 2; vertical burnishing ext.; lion/ human/bird-like figure.
19	1562	052	2	6/EB III B	Pale red paste 10 R 6/4; vertical burnishing ext.; caprids.
20	1596	082	4	6/EB III B	Red paste 10 R 5/8; fabric 1; lion and human.
21	1534	034	1	Clearing from 1998 excavation EB III B (?)	Red paste 10 R 5/8; fabric 1; lion and human.
22	11371 1511 11370	008 022 020	5 - 6	6/EB III B	Red paste 10 R 5/8; fabric 1; lion and caprids.

39 - A. Joffe, 2001, p. 368: "several possibilities are raised, the first is that they arrived in Greece *ca.* 2700 B.C., but could not be effectively employed until much later, the second is that contacts were sporadic and that information regarding seals and sealing did not arrive until Early Helladic II. A final suggestion is to see Lerna practices indirectly inspired by areas increasingly remote from the southern Levant: the Syro-Anatolian traditions of sealing bullae, vessel sealing such as late Uruk Hassek Höyük and EB Jerablus Tahtani..."

40 - S. Mazzoni, 1984, p. 33-34: "Guarantee of closure, guarantee of property, pottery factory mark, mark of a unit of measure, mark of quality, mark of the quality of the container, that is the jar, mark of quality of the product..."

41 - Ch. Nicolle, 1997, p. 109, 110, 115-116, 120.

42 - M. Flender, 2000, p. 303-305.

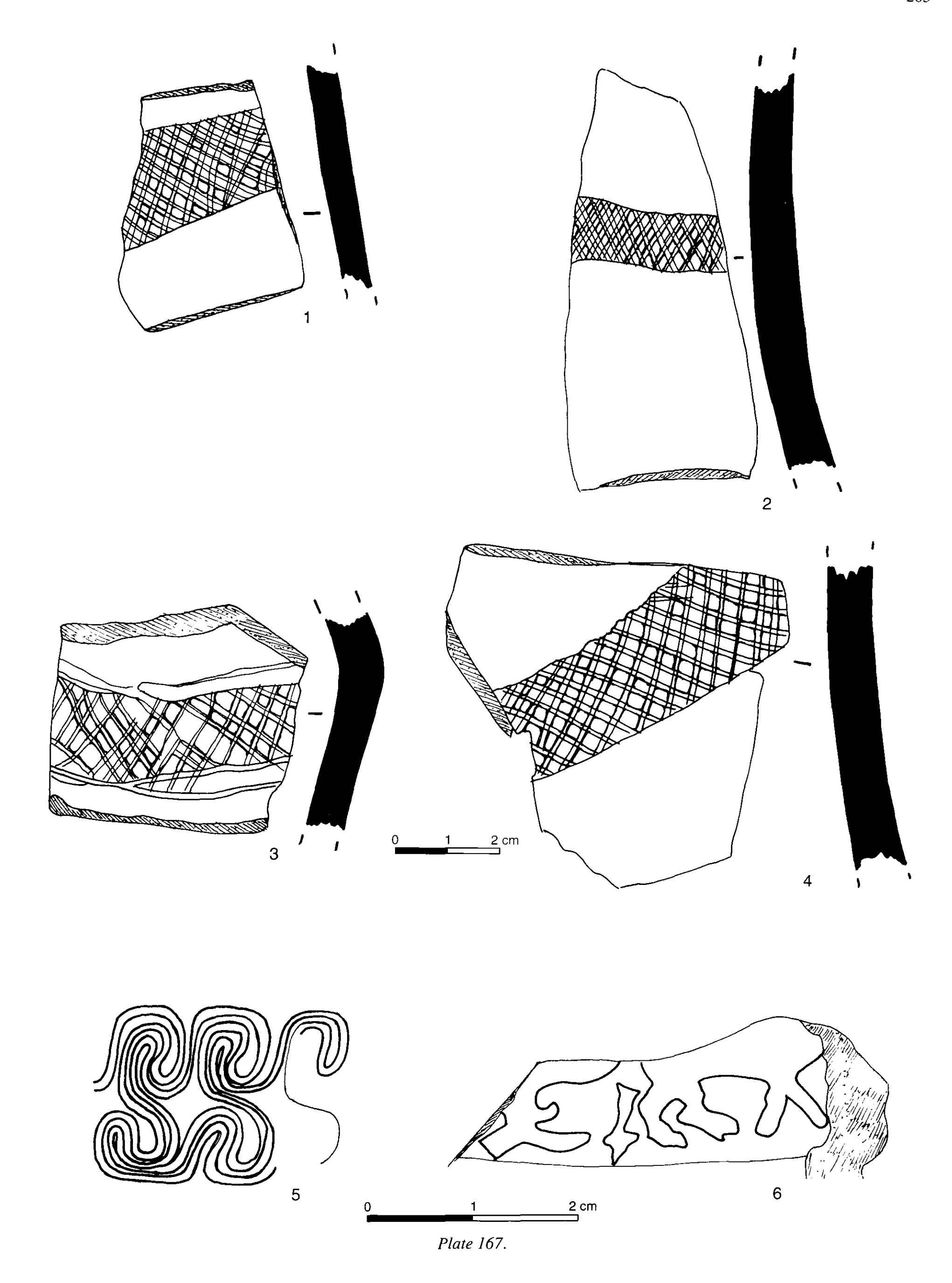


Plate 167.

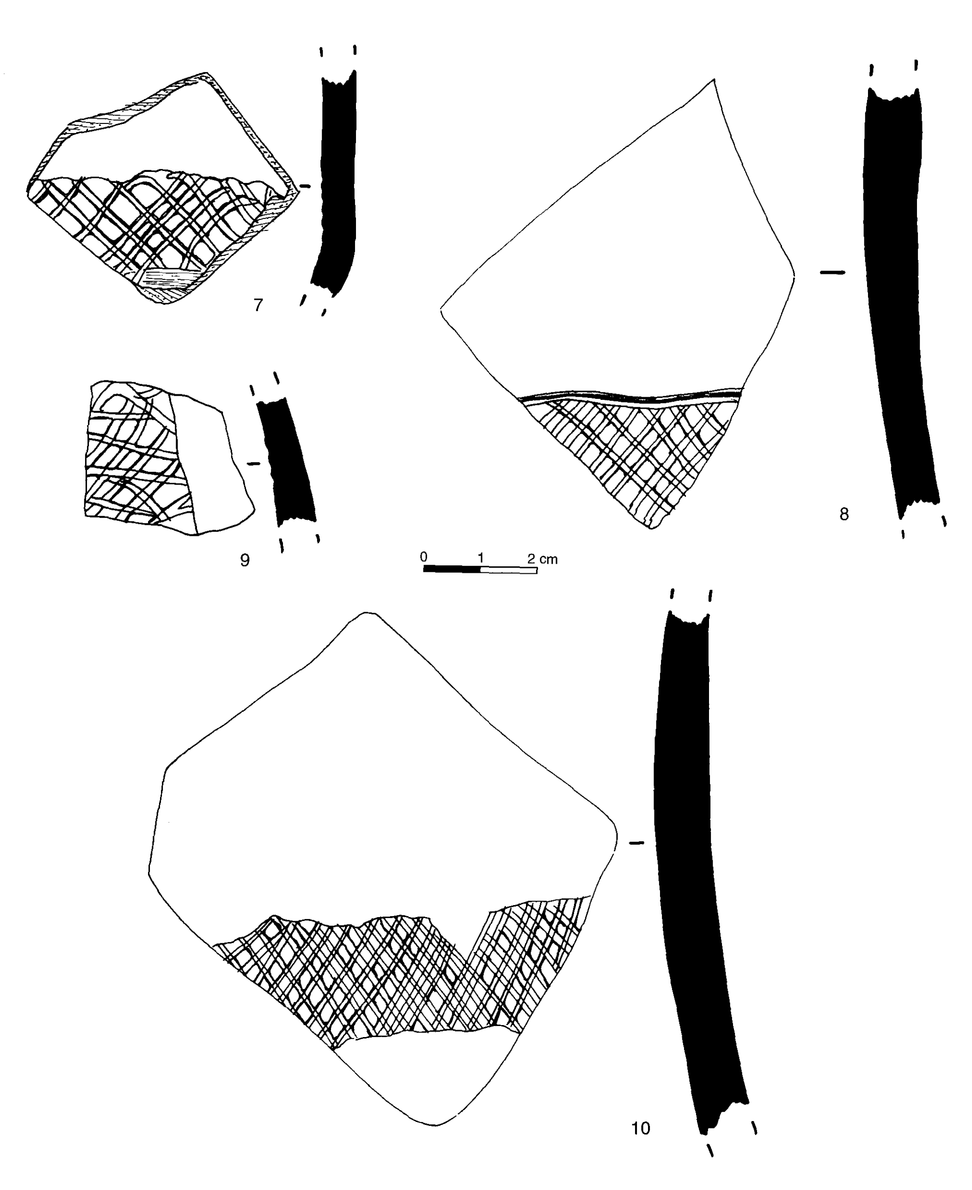


Plate 168.

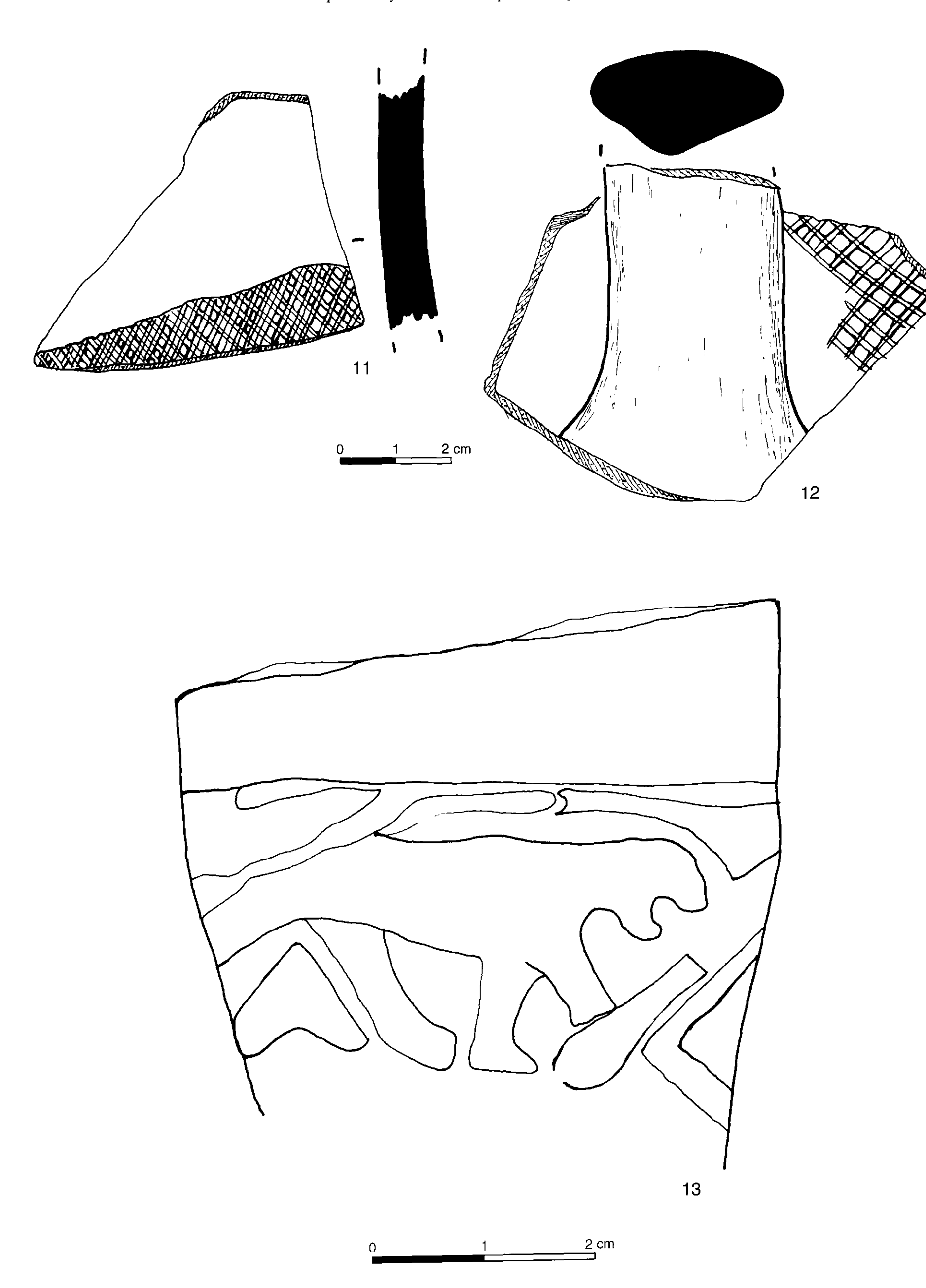


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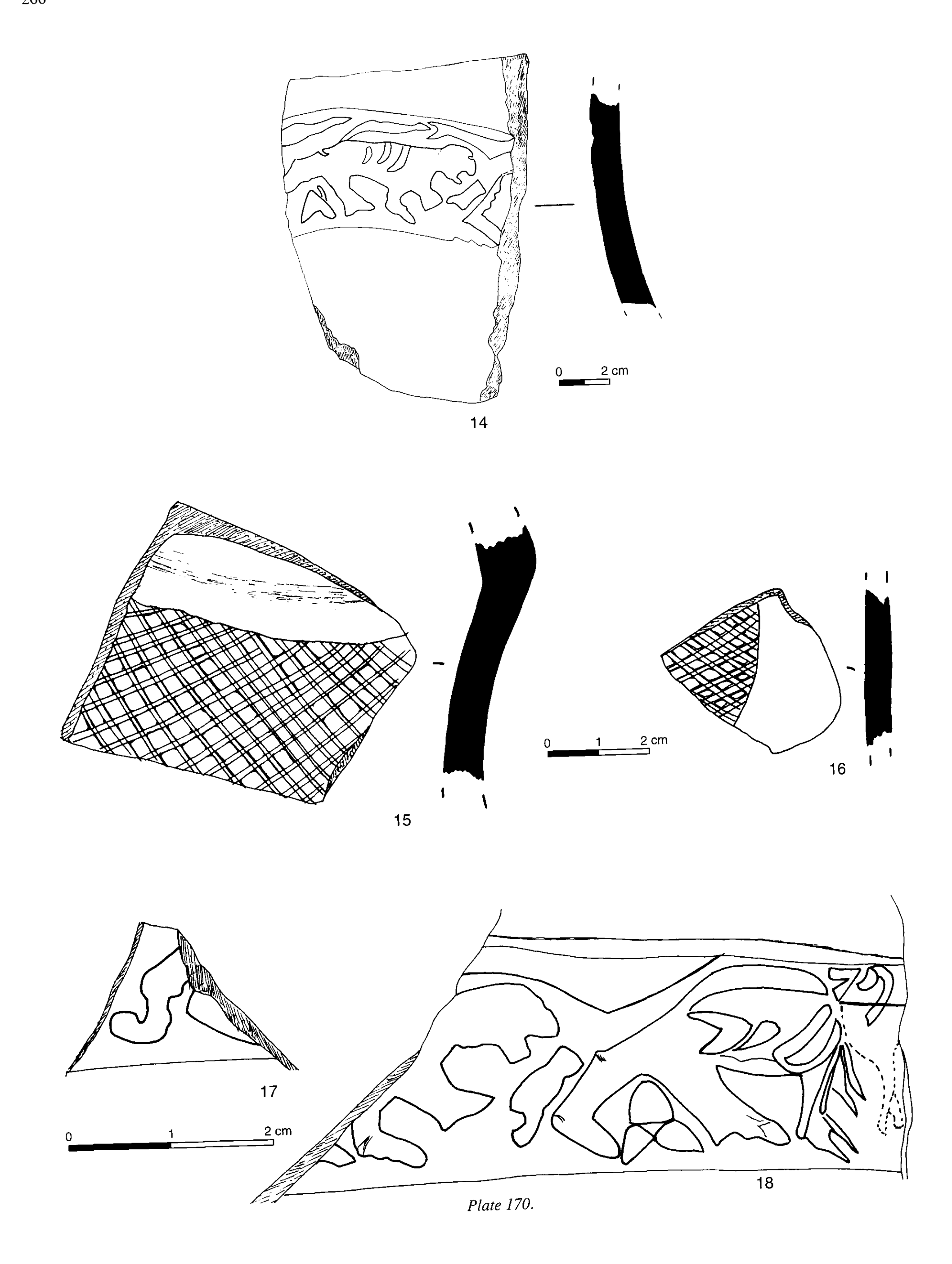
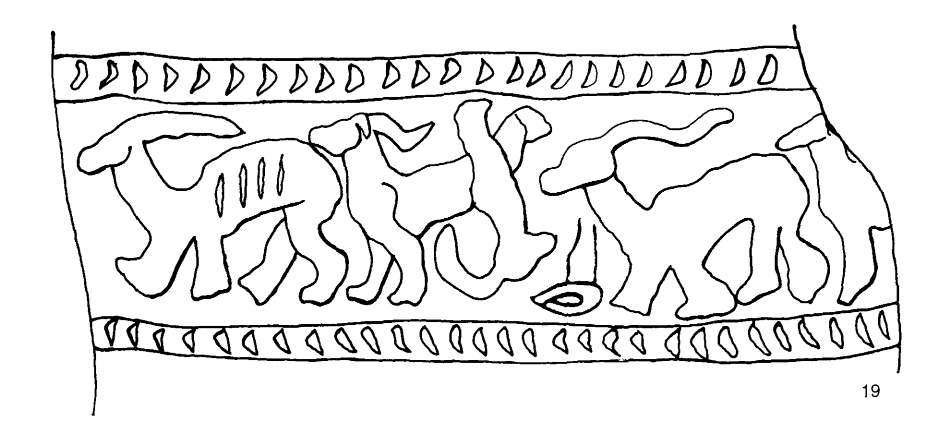


Plate 170.



19

20

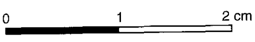


Plate 171.

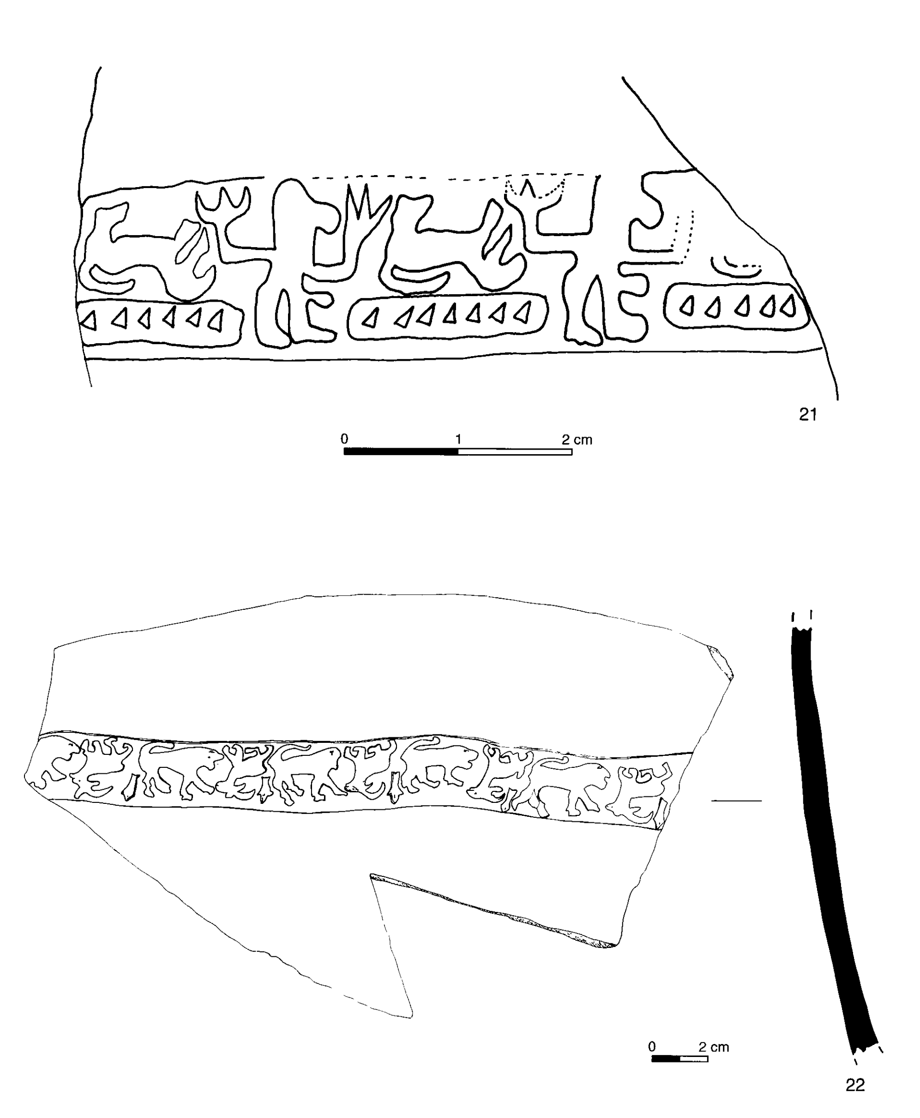
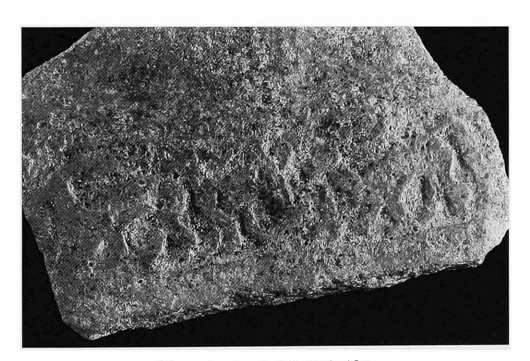


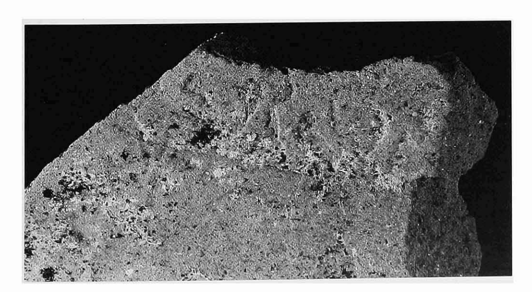
Plate 172.



*Running or inter-locked spiral (***Pl. 167, 5***).*



*Horned animals (***Pl. 171, 19***).*



*Bird-like figure (***Pl. 167, 6***).*



*Half-human half-animal composite creatures visible from the waist up (***Pl. 171, 20***).*



*Half-human half-animal composite creatures (***Pl. 170, 18***).*



*Human with an oval head, an erect penis and arms stretched upwards (***Pl. 172, 21***).*

Chapter VI. Small Finds: Catalogue

Stone (**Pl. 173a: 1-5**) and ceramic (**Pl. 174: 1**) rings have an unclear function as do the ceramic punctured pendants (**Pl. 174: 2-4**) found in strata 5 and 6. Mortars (**Pl. 173a: 7-9**) are usually found lying on floors and belong to strata 4 to 6.

The depression on the door socket (**Pl. 173b: 10**) bears evidence of a turning action.

Fourteen bone objects were found (**Pl. 175**). Apart from two found in strata 1 and 4 (**Pl. 175: 1, 4**), all objects were found in EB III A-B strata 5 and 6.

Applied ram's head on pottery occurs only in strata 5 and 6[1] (**Pl. 174: 5-7**).

1 - See discussion p. 53.

STONE IMPLEMENTS

N°	Reg. Number	Object	Locus	Strat.	Description
1	1840	Stone ring	273	1	Limestone; diam.: 3 cm; thick.: 1 cm.
2	1593	Stone ring	116	1	Limestone; diam.: 5 cm; thick.: 1 cm.
3	1607	Stone ring	107	3	Limestone; diam.: 4.5 cm; thick.: 1.4 cm.
4	1586	Stone ring	106	5	Limestone; diam.: 19.5 cm x 15.5 cm; thick.: 5.9 cm.
5	1731	Stone ring	165	6	Limestone; diam.: 7.7 cm x 8.8 cm; thick.: 1.7 cm.
6	1577	Bowl	094	4	Basalt; diam.: 11 cm; height: 5.8 cm; thick.: 2.7 cm.
7	1546	Mortar	054	4	Basalt; length: 14.5 cm; width: 14.8 cm; thick.: 4 cm.
8	1606	Mortar	113	5	Basalt; length: 14.5 cm; width: 10.5 cm; thick.: 3.4 cm.
9	1547	Mortar	053	6	Basalt; length: 16.6 cm; width: 17.2 cm; thick.: 3.5 cm.

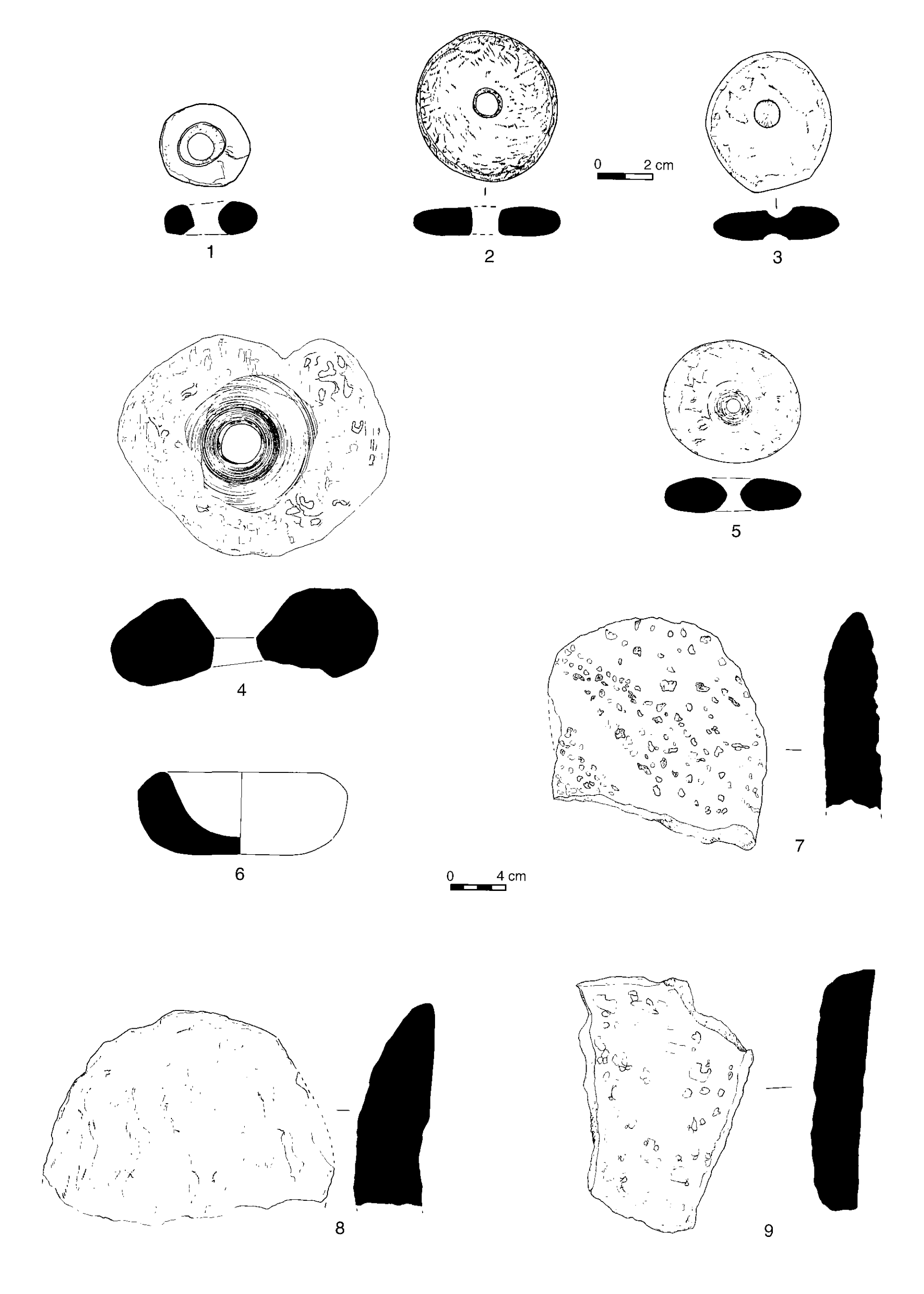


Plate 173a.

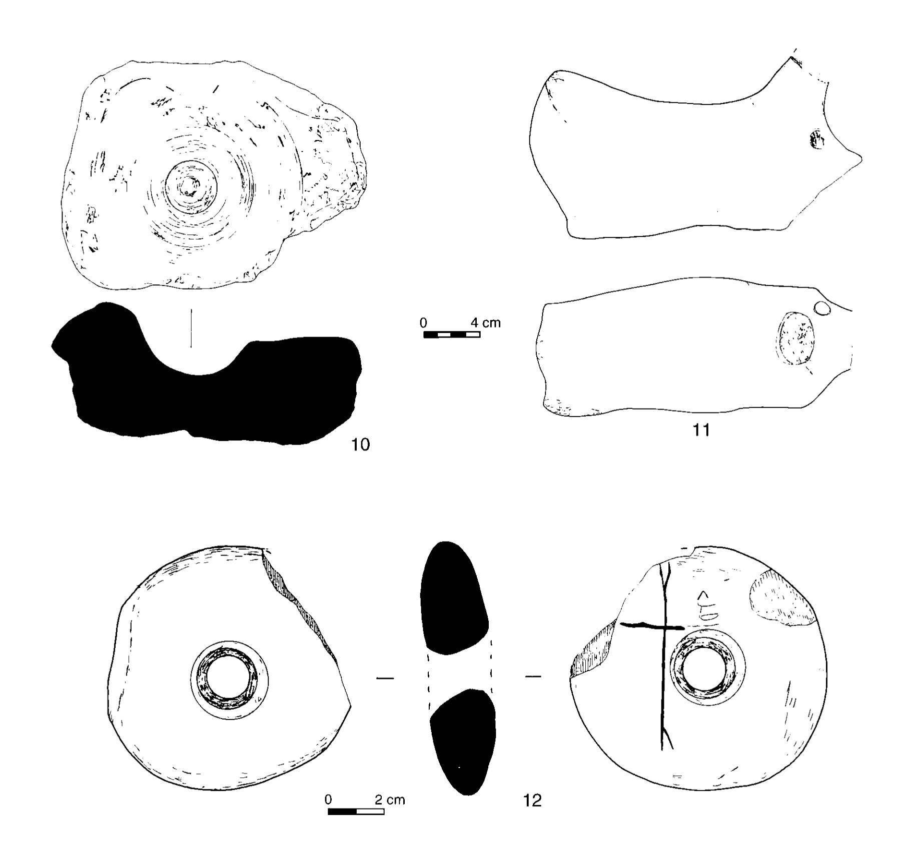


Plate 173b.

STONE IMPLEMENTS

N°	Reg. Number	Object	Locus	Strat.	Description
10	1506	Door-socket	006	6	Limestone; length: 20 cm; width: 14.5 cm; thick.: 7.5 cm.
11	1527	Animal figurine	034	6	Limestone pierced with one hole on the back and one on the side; length: 24.5 cm; width: 8 cm; thick.: 12.6 cm.
12	1515	Stone ring	011	1	Limestone; diam.: 7.8 cm x 8.1 cm (broken); thick.: 2.3 cm; incised.

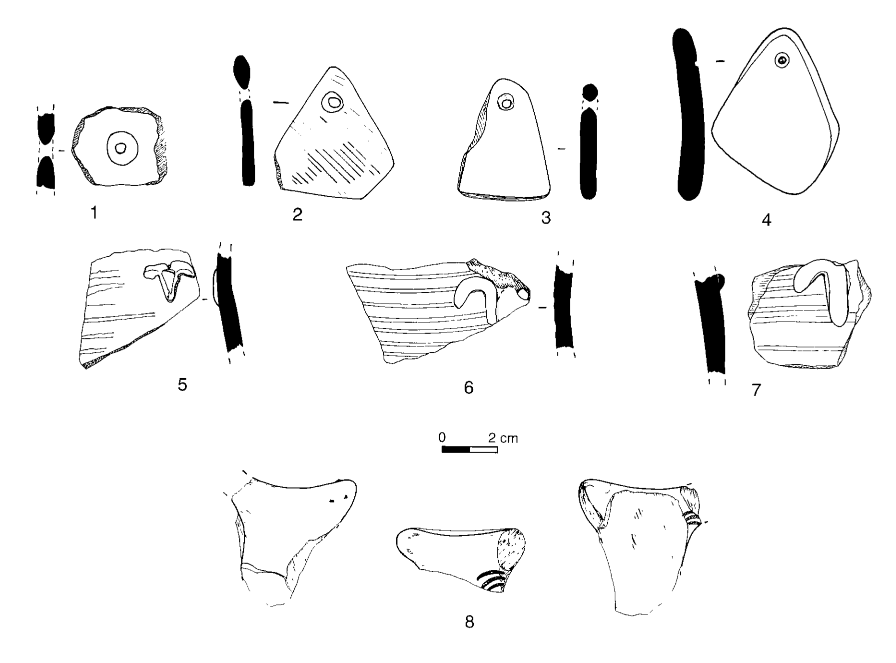


Plate 174.

Ceramic implements

N°	Reg. Number	Object	Locus	Strat.	Description
1	1599	Ceramic ring	085	4	Pale red paste 10 R 6/4; fabric 2; length: 3.2 cm; width: 2.8 cm; thick.: 0.7 cm.
2	1584	Pendant punctured	020	5	Light red paste 10 R 6/8; fabric 1; length: 4.5 cm; width: 4.3 cm; thick.: 0.6 cm.
3	1761	Pendant punctured	175	6	Pale red paste 10 R 6/4; fabric 2; length: 4.1 cm; width: 3.2 cm; thick.: 0.6 cm.
4	11337	Pendant punctured	007	6	Light red paste 10 R 6/8; fabric 1; length: 5.8 cm; width: 4.6 cm; thick.: 0.3 cm.
5	1616	Applied ram's head	110	5	Reddish grey paste 10 R 6/1; fabric 2; length: 3.5 cm; width: 4 cm; thick.: 0.5 cm.
6	1564	Applied ram's head	052	6	Light red paste 10 R 6/6; fabric 1; length: 3 cm; width: 5.5 cm; thick.: 0.6 cm.
7	1953	Applied ram's head	265	6	Red paste 10 R 5/6; fabric 2; length: 3.8 cm; width: 4 cm; thick.: 0.6 cm.
8	7729	Animal head	181	6	Light red paste 10 R 6/8; fabric 2; length: 4.5 cm; width: 4.6 cm; thick.: 1.4 cm.

Bone implements

N°	Reg. Number	Locus	Strat.	Description
1	1595	116	1	Worked bone awl; length: 2.5 cm; width: 0.5 cm; thick.: 0.2 cm.
2	3058	101	5	Worked bone awl pierced; length: 4 cm; width: 0.5 cm; thick.: 0.7 cm.
3	3055	091	5	Abraded worked bone; length: 6.4 cm; width: 0.6 cm; thick.: 0.3 cm.
4	1594	117	4	Worked bone (broken); length: 8.3 cm; width: 2 cm; thick.: 0.2 cm.
5	3060	181	6	Abraded bone (broken); length: 4.7 cm; width: 1.6 cm; thick.: 0.8 cm.
6	3063	043	6	Worked bone (broken); length: 5.2 cm; width: 1.4 cm; thick.: 0.3 cm.
7	1542	053	6	Worked bone; length: 10.3 cm; width: 1.3 cm; thick.: 0.7 cm.
8	1543	049	6	Worked bone; length: 9.3 cm; width: 1.5 cm; thick.: 0.6 cm.
9	1588	071	5	Pierced handle (broken); length: 3.5 cm; width: 1.2 cm; thick.: 0.2 cm.
10	3059	102	5	Pierced handle (broken); length: 9.8 cm; width: 1.6 cm; thick.: 0.6 cm.
11	3062	043	6	Worked bone; unfinished hole; length: 3.8 cm; width: 2.2 to 1.5 cm; thick.: 0.4 cm.
12	3057	082	6	Abraded bone; length: 7.2 cm; width: 3.7 cm; thick.: 0.5 cm.
13	3061	181	6	Abraded bone (broken); length: 5.2 cm; width: 2.5 cm; thick.: 1.8 cm.
14	1536	052	6	Spindle whorl; diam.: 3.7 cm; thick.: 1.6 cm.

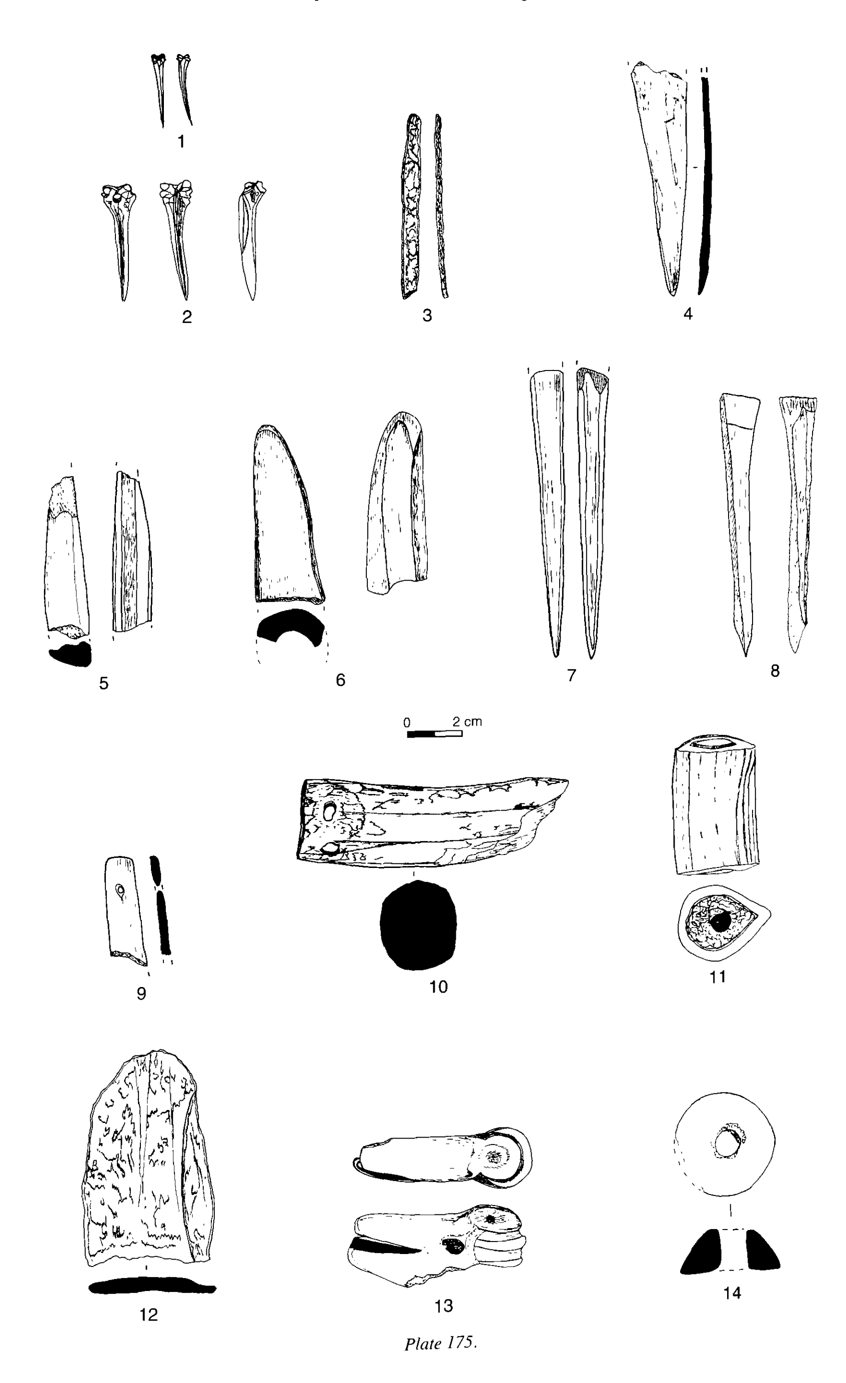


Plate 175.

Chapter VII. Petrographic Analysis of the Early Bronze Age Ceramics

Dafydd Griffiths

This chapter presents the results of examination of the fabrics of the Early Bronze Age ceramics excavated at the "College Site" in Sidon between 1998 and 2001. This examination of the ceramic fabrics was based on observation of cut sections at low magnification with reflected light (using a hand lens, low power reflected light microscopy and macrophotography) and on petrographic observation of thin sections of the ceramics using transmitted polarized light microscopy.

In terms of the outline of the mediaeval port city of Sidon, the College site lies just to the north of the *Chateau de la Terre* and just outside (to the east of) the N-S mediaeval city wall which joined the *Chateau de la Terre* at its south end to the *Chateau de la Mer* at the north end by the port. The site thus lies within a few hundred metres of the coast and the ancient port.

In some areas of the College site, *in situ* floor levels and stone walls have been found. (See descriptions of Strata 3, 4, 5 and 6 in Chapter 2 of this volume.) On the basis of the style of the associated ceramic remains these may be quite confidently dated to the EBA periods. (See the discussion that forms the last part of Chapter 4 of this volume.) The EBA areas exposed by the excavation appear to have been quite densely occupied. In some areas *in situ* plaster floors and a plaster-lined trough survive. In a nearby area there is a floor level with a stone mortar and quern stone that may have been used for food preparation. The plentiful ceramic remains found in these EBA features have the potential to shed light on the everyday lives of people living in this area and will give more substance to our picture of life in ancient Sidon.

The Role of Fabric Analysis[1]

Studies of the form and style of decoration of ancient ceramics can provide much information about the tastes and perceived needs of the people who made or used the pottery. These approaches also provide important clues about cultural contacts and networks of exchange and trade either in the ceramics themselves or in the goods they contained. The analysis of ceramic fabrics provides a significant complement to studies of the shape and style of ceramic objects. The term "fabric" in this context indicates the compositional and microstructural constitution of ceramic artifacts. Optical microscopy reveals aspects of the constitution of ceramic fabrics that manifest themselves in the optical properties of the fabrics. Microscopic observation of fabrics can reveal the identities of mineral, rock, microfossil and organic inclusions, the proportion of such inclusions present in the fabric, and the distributions of size, shape and orientation displayed by the inclusions.

A number of archaeologically interesting questions can be addressed fairly directly by analysing the material from which ceramics were made. One may for example investigate what the ceramics were made of, how they were made and when they were made. One may also analyse the remains of what they contained. Once fabric groups are established, one may look for correlations of fabric groups with vessel shape or decoration, with context or with stratigraphic layer. One may attempt to determine the origin of the ceramics by comparing their fabrics with the fabrics of ceramics of known origin (such as those excavated as wasters from kiln sites) or by comparing their fabrics with geological raw materials of known origin. Examination of the fabrics provides important clues as to the geological regions in which one may hope to find the sources of raw materials. Analysis of ceramic fabrics can also reveal technical aspects of manufacture such as techniques of surface decoration and firing conditions. Knowledge of techniques of manufacture and origin of raw materials may also illuminate higher questions concerning the spread of technical knowledge, interaction of people from different geographical areas, cultural contacts, systems of social and economic organization, and systems of trade and exchange. One of the first steps towards these goals is to examine and characterize the various ceramic fabrics found on the site.

In the specific context of the EBA ceramics from Sidon, fabric analysis may be able to assist in elucidating techniques of manufacture and in distinguishing ceramic objects made

1 - This topic was also dicussed in D. Griffiths, 2000, p. 49-50.

from local materials from objects made from materials not found locally. In the latter case either the raw material or the finished object must have been imported. In the case of ceramic vessels the significance of such imports may sometimes lie more in the import of the goods they contained than in the import of the vessels themselves.

As more information on ceramic fabrics and raw materials from Sidon and neighbouring regions becomes available, the use of fabric analysis (together with the longer established approaches of studying shape and style) should provide additional independent data that will give a clearer view of the interaction of the people of Sidon with the surrounding areas in the Early Bronze Age. Fabric analysis may also elucidate aspects of the continuity or otherwise in the utilization of raw material resources and in manufacturing technology within and beyond the Early Bronze Age period.

In common with many other ancient ceramics, the EBA Sidon ceramics have a fine-grained matrix composed of clay minerals and other very small particles, within which are found a variety of larger inclusions. Some of the ceramics also have surface decoration. This may be applied by modifying the surface microtopography, for example by combing or burnishing, or by the addition of extra material such as a slip or a more localized painted design.

Archaeological ceramic fabrics have of course been subject to a succession of processes prior their being excavated. Many of these will have affected the constitution of the ceramic fabric, on the one hand complicating the task of identifying the original raw materials but at the same time leaving clues about the processes occurring during the manufacture, use and burial of the objects.

Processes affecting the constitution of the excavated ceramic fabric begin at the point where raw materials are gathered. Particular parts of an inhomogeneous sedimentary deposit may be deliberately selected for use in making particular types of ceramic object. When dug out of the ground, the raw materials are seldom in a fit state to be formed into the desired object, so they must generally be prepared in some way in order to make them more workable. This is generally achieved by manipulating the particle size distribution and the water content of the clay-water mixture, although the types of clay minerals present and the concentration and type of the ions dissolved in the water also have an effect.

The preparation of the raw material prior to forming the ceramic object may involve manipulating the constitution of a single raw material. Most naturally occurring "clay" deposits are in fact mixtures of different clay minerals and other fine materials (iron oxides and microscopic organic matter for example) each with their own properties and each occurring in the particular clay deposit in a given particle size range. The potter may thus simply manipulate the constitution of this single naturally occurring raw material, for example by weathering to break up flocculated clumps of fine particles or by selecting a particular particle size range (thereby probably selecting particular mineral components) from the mixture.

Alternatively, the potter may blend together different raw materials with contrasting properties so as to form a clay-water system with the desired intermediate properties. A present-day potter working near Sidon gathers clay opportunistically when building works and the like make a suitable clay deposit accessible. He blends clays from two or three different sources to make a workable end product. This blending is done empirically from experience of the physical properties of clay-water mixtures. The nature of these "desired properties" will of course vary depending on what the potter wishes to make and how the object is to be formed.

Once the raw material is prepared, it is formed into an object and perhaps decorated. The object is then left to dry prior to firing. Once fired, the object is used and perhaps re-used and eventually discarded and buried. Each one of these stages may have an effect on the constitution of the ceramic fabric. Therefore it may be possible to deduce information about each of these stages from the study of the final constitution of the excavated ceramics. Although a number of factors may interfere with this, it is usually possible to find some clues relating to each stage in the history of the ceramic if a sufficiently large assemblage of ceramics can be examined.

THE SELECTION, EXAMINATION AND GROUPING OF SAMPLES

For the purpose of the present study, excavated sherds were washed prior to selecting by eye examples of what appeared to be different fabrics. Samples were taken with the aim of representing the full range of the EBA ceramic fabrics present in the *in situ* archaeological contexts. A number of sherds of each fabric type were sampled with the aim of gaining an indication of the range of diversity within what appeared by eye to be a single fabric group. In all, over one hundred samples were taken from the EBA contexts. These did indeed show that there was a range of variation within a number of broad fabric groups.

The detailed structures and constitutions of ceramic fabrics are not very clearly seen on the surfaces and previously broken edges of excavated sherds. A common method of obtaining a clearer view of the fabric while in the field is to examine a freshly fractured surface. This view is free of the obscuring deposits remaining from the burial context and it often shows inclusions particularly clearly as the fracture surface often passes around the inclusions leaving them standing proud of one or other of the pair of freshly created surfaces. A fresh break does, however, give a somewhat unrepresentative view of the fabric. This is because a fracture surface travels through a material following the course of least

resistance, running wherever the fracturing stress exceeds the tensile strength of the material. Thus the fracture surface preferentially exposes the areas of the fabric that have low tensile strength. The fracture tends to travel around inclusions because the inclusions themselves are stronger than the bond between the inclusion and the surrounding matrix. Fractures also tend to expose preferentially any glassy or easily fractured phases (such as mica flakes) because these often represent the route of least resistance: glass is brittle and the mica cleaves easily. Also, because firing introduces progressive changes in the constitution and microstructure of a ceramic fabric, the appearance of a fresh fracture through a given fabric may be considerably affected by the way in which the fabric is fired. As firing conditions may vary considerably between different parts of the same firing, the effects of firing may complicate fabric classification if fresh fractures are used. Fresh fractures thus have advantages in emphasizing particular aspects of ceramic fabrics but have limitations in that they often expose an unrepresentative section through the fabric and that section in itself may vary with firing conditions.

In order to gain a more representative view of the fabrics for the purpose of sampling the Sidon EBA ceramics, slices of the ceramic were removed from selected sherds using an electrically driven, water-cooled circular saw with a diamond-impregnated rim. This is a quick and easy approach once one has a little practice. A thin wafering blade with fine diamonds was used to make the cuts, and the cut surface then had the worst of the scratches from sawing removed using fine silicon carbide abrasive papers. This gave a clear and unbiased view of the constitution of the ceramic fabrics with a minimum loss of material. Where possible the samples were taken from diagnostic numbered sherds so that the fabrics could later be related back to particular drawn sherds of known form and style of decoration. Small samples were sliced from the sherds using the thin saw, taking care that the slice removed did not diminish the diagnostic value of the remaining sherd in terms of its shape or decoration.

It should be noted that selection of the sherds to be sectioned was done by eye on the basis of the appearance of the washed surfaces and edges of the sherds. Although it would in principle be possible to miss a fabric that was distinctive in section but appeared very similar to another when viewed externally by eye, this is not very likely to have occurred to any great extent in practice. One reason to believe that it is not very likely that fabrics were missed is that many sections were made of fabrics that appeared externally to be very similar specifically in order to ascertain the range of variation present in fabrics that appeared to be similar when viewed externally by eye. In addition, further sections were made whenever there was a slight suspicion from the external appearance that there might be some difference in fabric. This exercise did demonstrate a range of variation within fabric groups (see below) but it also attested to the fact that after a certain amount of practical experience one comes to be able quite reliably to recognize a fabric from its external appearance. The process of sectioning is therefore generally far less destructive than might be supposed since one soon comes to recognize the fabrics from their external appearance, so sectioning is then only required in the (progressively decreasing) number of cases where there is some suspicion that a new fabric or new variation on a fabric may have been found.

Describing ceramic fabrics in words is difficult and remembering the appearance of many of specimens viewed one after another down a microscope is also difficult. Macrophotographs or photographs of the fabrics taken down a low power microscope can facilitate grouping of the fabrics. For cut sections viewed by reflected light, photography can often be done on site to yield either digital images displayed on a computer screen or, in some cases, photographic prints. An advantage of using photographic prints is that they can be laid out on a table, viewed simultaneously and physically sorted into groups. Whether in hard copy or displayed on a computer screen, magnified images facilitate discussion of the fabrics. Once the fabrics have been studied in section and groups determined, it becomes easier to recognize the fabrics in their freshly excavated or washed states.

In addition to examination by reflected light, the Sidon samples were also examined in thin section by polarized light microscopy. This provides an important check on the preliminary grouping of fabrics by reflected light and may well allow considerable refinement and closer definition of the fabric groups. Thin section petrography allows far more detailed identification of mineral, rock and fossil fragments in the fabric, provided these are present as sufficiently large inclusions for details of their optical properties and structures to be determined. Thin section petrology could be done in the field and in some circumstances there might be considerable advantages in having the thin section information available while the excavation is still in progress. The preparation of thin sections is, however, far more time-consuming than preparing plane cut sections for examination at low magnification by reflected light.

It should be recognized at the outset that characterization of clay-based ceramics is not a finite activity that can be undertaken and may then be considered complete. It is always possible to do more, to look at the ceramics with other techniques or from another point of view. Even from the single viewpoint of thin section petrography it should be recognized that groups are to an extent abstractions made in order to present a mass of multi-variate data in a comprehensible form. In the case of thin section petrography this data may include optical properties, mineral and fossil constitution, mineral associations and habits, particle size and shape distributions etc. As further sections are examined, fabrics may be found which do not fit neatly into the groups or categories that were defined on the basis of the previously

examined fabrics. The definitions and boundaries of ceramic petrographic groups are thus not static finished entities but working, conceptual frameworks that may need to have their structures and boundaries modified as more samples are examined.

Despite these caveats, it is fortunately true that the conservativism of the potters' craft does lead generally to a limited range of ceramic types and petrographic groups within a context of time and place. (This range of variation is of course influenced by the extent of imports from other geographical areas, the homogeneity of the raw material deposits being exploited locally and the methods used to prepare the raw materials and manufacture the objects.) The limited range of variation in fabric generally results in progressively fewer revisions to group boundaries being necessary as more sections are examined, although the discovery of a slightly different fabric can only serve to extend the boundaries of an existing group, cause a group to be split or to cause a new group to be defined. Defining fabric groups is thus a matter of drawing a balance between having a few broad groups that give an overview of the fabrics present and having dozens of more closely defined groups, tending towards a limit of regarding each section as having a unique fabric and there being as many groups as sections examined. (Acting against the archaeological usefulness of latter limit is the fact that there may be significant variation in fabric between different sections taken from a single vessel.)

Notwithstanding these general observations on the petrographic grouping of archaeological ceramics, the groups presented below appear on the present evidence to be reasonably robust.[2] The results presented here constitute the current working classification scheme for the ceramic fabrics but they do not claim to be a final definitive classification. The groups are, however, the result of the examination of over one hundred sections.

The appearance of fabrics as seen under the microscope can be related back to the appearance of the fabrics as seen by the unaided eye. The identification or confirmation of ceramic fabric groups by petrographic analysis of thin sections under the microscope can provide a considerably more secure basis for recognizing some (but not necessarily all) fabric groups on the basis of their visual appearance. This approach has proved particularly useful in Sidon where it has enabled Claude Doumet-Serhal to classify all the diagnostic sherds according to fabric on the basis of visual inspection. It would have been far too time consuming to make this classification by examining a thin section of each diagnostic sherd but the microscopic examination of thin sections of selected sherds has provided the necessary basis for the reliable and rapid identification the fabric group of each diagnostic sherd on the basis of examination with the unaided eye.

Microscopic examination of thin sections also helps to raise awareness of the limits of what can be achieved by examination with the unaided eye. For example the three fabric sub-groups 1A, 1B and 1C can be distinguished by thin section petrology but cannot reliably be distinguished by the unaided eye. Similarly, further sub-groups might in the future be defined within the present Group 5 on the basis of the microfossils present. It is unlikely, however, that these sub-groups could be distinguished using the unaided eye. Here again it is necessary to draw a balance between the more detailed information on provenance potentially available through thin section petrology of a limited number of samples and the less specific information that can be determined by eye from every sherd. The nature of the balance between precision and speed will be influenced by the specific context of the research but a middle road may often prove the most cost-effective.

The results of the visual analysis are presented in the latter part of chapter 4 of this volume in the form of tables. These show, for each stratum, the numbers of diagnostic sherds of each type belonging to each fabric group. For each stratum, the relative numbers of diagnostic sherds belonging to each fabric are presented in the form of pie charts.

The descriptions and photographs that follow attempt to give an overview of the variety of fabrics seen in the EBA contexts from the College site. The fabric groups have been numbered but no significance should be attached to the order of numbering. The use of descriptive names for the fabric groups has been avoided as these labels might carry unintended connotations that might inappropriately influence future research. It would have been possible to define further sub-groups of the main fabric groups, but these have only been defined for group 1 where they seemed most clear. What appeared as distinct sub-divisions when only a limited number of samples had been examined, however, now appear more as parts of a continuous range of variation. The sub-groups of group 1 have been retained for the purpose of describing the appearance of the fabrics in thin section because they help to describe the range of variation within the group. These sub-groups do not appear in the fabric analysis presented near the end of chapter 4 of this work, however, because they cannot readily be distinguished with the unaided eye.

2 - The group numbers presented below are consistent with the preliminary group numbers and descriptions given in the preliminary ceramic fabric groups presented in D. Griffiths, 2000, p. 53-55. The preliminary groups have thus largely stood the test of time and the examination of many additional samples. The descriptions given below are considerably more detailed than those presented in 2000.



Fig. 1 - Sherd 2359 from context 078. The upper part of the figure shows the orange outer surface of the sherd and its combed decoration. The cross-section of the same sherd shows ARFs and limestone fragments as well as differences in colour where carbon has been burnt out to different extents. The cross-section of 2359/078 shows elongate inclusions, some bordered by shrinkage voids, and a fair density of fairly large limestone fragments (white).

FABRIC GROUP 1

Fabric group 1 is essentially defined by the presence of somewhat elongate, sub-rounded, iron-rich argillaceous rock fragments (ARFs) in an iron-rich matrix. These ARFs are often partially split along their long axes. They generally have no notable inclusions and are probably derived from a poorly compacted shale. The ARFs, particularly the elongate, internally aligned ones, are often partially or wholly surrounded by voids in the fabric. (These inclusions thus tend to be plucked out of the sample during sample preparation.) These ARFs are clearly visible with the naked eye in a section cut through a sherd of fabric group 1 (see **Fig. 1**).

The shrinkage voids are often more prevalent along the long sides of the ARF inclusions. The precise cause of their presence is uncertain. If the ARFs are more like clay pellets than non-plastic rock fragments then their wet-dry shrinkage is likely to be greater than that of the surrounding matrix because of their finer particle size (there being more inter-crystalline water layers per unit volume to evaporate). If the ARFs contain an appreciable content of smectite clay minerals this will further contribute to their wet-dry shrinkage as the smectite crystals themselves shrink on drying due to loss of inter-layer water from within the crystals. In either of these cases, wet-dry shrinkage will be greater perpendicular to the alignment of the clay crystals because of their plate-like shape and the existence in the wet state of more layers of water to evaporate per unit distance perpendicular to the alignment of the plates. An alternative hypothesis for the origin of the voids is that the ARFs are initially drier than the surrounding matrix and absorb water from the matrix causing the latter to shrink away towards the still wet surrounding matrix to which it bound by surface tension. A further origin of the voids might lie in firing shrinkage but further work is needed to elucidate the true origin(s) of the shrinkage voids around the ARFs.

In fabric group 1, there are often some fairly large sub-rounded or rounded limestone inclusions although these vary in their frequency from quite rare to numerous.



Fig. 2 - Cross section of sherd 11190 (a base) from context 273 showing ARFs, some surrounded by voids. Some ARFs show splitting along the direction of alignment of their constituent particles. Here the ARFs appear to have had a lower organic content than the matrix since they stand out in the core as less grey than the surrounding matrix.

Figure 2 (a cross-section of sherd 11190/273) also shows voids around the ARFs but here many of the ARFs are less elongate although several still show their internal alignment through directional splitting. Note that the frequency of occurrence of the large limestone inclusions in this sample is less than in the previous cross-section. In some sherds there are hardly any large limestone inclusions.

Comparison of the fairly similar fabrics shown in the cross-sections of **figures 2** and **3** illustrate considerable variation in colour from red and orange through grey to black. During the firing of these ceramics, microscopic organic matter naturally present in the clay and in the ARFs first chars on heating to render everything grey or black depending on the carbon content. Once above about 500°C, if free oxygen is available (which it will be only if it has not

all been consumed by burning of the fuel) it can diffuse into the fabric and start to burn out the charred organics from matrix and ARFs. The resulting colour in low-fired ceramics depends on the fired clay colour (often influenced by its iron oxide content) and the amount of carbon remaining. The extent to which the carbon is removed depends on the amount of oxygen available, the temperature, the porosity of the ceramic and the duration over which the process occurs. Dark cores are common in the EBA Sidon ceramics. **Figure 2** shows a second region of carbon deposition near the outer surface of the sherd. This is probably due to soot deposited from fuel burning with a smoky flame (due to insufficient oxygen) in the latter part of the firing, although this could in principle have been acquired during exposure to a fire at a later time in the history of the vessel.

The elongate ARFs display a variety of colour from pale orange but are generally bright orange or red, remaining grey or black in parts of the sherd where the matrix remains grey or black. In **figure 2** the ARFs in the core are redder than the surrounding grey core of the matrix, suggesting that they may have had a low organic content (albeit more complex explanations involving changes of firing atmosphere are possible). In **figure 3**, however, grey to black ARFs are clearly seen in the cross-section of sherd 3771/102: here the resistance to burning out of carbon from the ARFs probably reflects their lower porosity in comparison to the matrix.



Fig. 3 - Cross-section of sherd 3771 from context 102 showing ARFs, mostly still black with carbon due to their lower porosity.

Most of the elongate ARFs in group 1 fabrics contain no obvious inclusions, although occasionally they contain small angular quartz grains. ARFs containing quartz grains tend to be less likely to display splitting and are generally more spherical than elongate, although intermediate examples are seen.

Fabric group 1 may be subdivided into group 1A, the "pure form" of fabric group 1 described above, group 1B which also has numerous small limestone inclusions, and fabric group 1C where small angular quartz (rather than limestone) inclusions are present. (These sub-groups are not easily distinguishable with the unaided eye and thus are not mentioned in Chapter 4 where they are all considered together as fabric group 1.)

In ***fabric group 1A***, the dominant inclusions in the iron rich matrix are elongate ARFs and large rounded limestone: quartz is absent or rare, as are other inclusions. A thin section of sherd 2365/078 shown in **figure 4** is a fairly typical example of fabric type 1A as seen down a petrological microscope. (The width of the field of view in all the thin sections shown in this chapter is 1.0 mm.) In the section of sherd 2365/078, the elongate ARFs, red or nearly black in the core (according to remaining carbon content), lie in a fine iron-rich matrix. The ARFs are bordered, particularly along their longer margins, with shrinkage voids. Some of the ARFs show splitting in the direction of their long axes. The section of sherd 2365/078 contains only rare limestone inclusions. (Very unusually for fabric group 1, this section also contains a single large rounded quartz grain. This could, however, have been incorporated accidentally during manufacture. It is not shown in **figure 4**.)

In ***fabric group 1B***, fairly numerous small weathered limestone fragments (yellowish) are also present in the matrix in addition to the elongate ARFs and larger limestone inclusions typical of fabric group 1. Fabric 1B is illustrated in **figure 5**, which shows part of a thin section of sherd 2009/068.

In ***fabric group 1C***, numerous small angular quartz grains are present in the matrix, and may also be present in some ARFs, though predominantly quartz-free elongate ARFs are still present. Group 1C sherds still contain the occasional larger rounded limestone inclusions that are a general feature of fabric group 1 but not the mass of fine limestone inclusions seen in fabric 1B. Numerous small angular to sub-angular quartz grains are the most immediately obvious distinguishing characteristic of fabric 1C under the polarized light microscope. Thin sections of fabric 1C show elongate, splitting ARFs, some containing a few small quartz grains. Sometimes a few more spherical ARFs are present and some of these contain a higher proportion of small angular quartz. It is not impossible that the matrix of fabric group 1C derives from disaggregation of a mudstone containing some small angular quartz as seen in some of the ARFs. In some sherds the more spherical, quartz-containing iron-rich inclusions may outnumber the elongate ARF inclusions. Fabric 1C is illustrated in **figure 6** below which shows two sections made from the same sherd. Although the predominant small inclusions in the matrix are quartz (so placing the fabric in group 1C) this sherd is not an example of 1C in its purest form. The presence of some small limestone inclusions would allow the sherd to be considered as intermediate between group 1C and group 1B, albeit closer to the former than the latter.

Just as the sherd illustrated in figure 6 might be considered as lying between fabric group 1B and 1C, other sherds - not illustrated - have a little fine angular quartz in the matrix and so might be considered intermediate between 1A and 1C. The existence of these intermediate fabrics, all of which contain elongate ARFs in some proportion argues in favour of keeping group 1 as a single group with

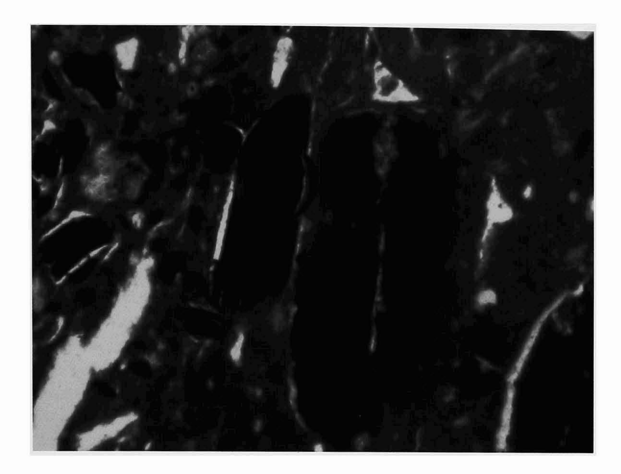


Fig. 4 - This shows a fairly typical group 1A fabric (sherd 2365/078) in thin section. In the centre of the field of view, which is towards the core of the sherd, are two elongate ARFs showing some tendency towards splitting. The diffuse outline of the fragment on the right is due to the carbon having started to be oxidized away. The ARFs are less porous than the surrounding matrix and retain the carbon longer. Once the carbon is burnt out the ARFs are very similar in colour to the matrix. The lower right of the field of view, which is nearer the surface of the sherd, shows part of another ARF with a surrounding void. This ARF has already had its carbon burnt out and is a similar colour to the surrounding matrix. The field of view is 1 mm across.

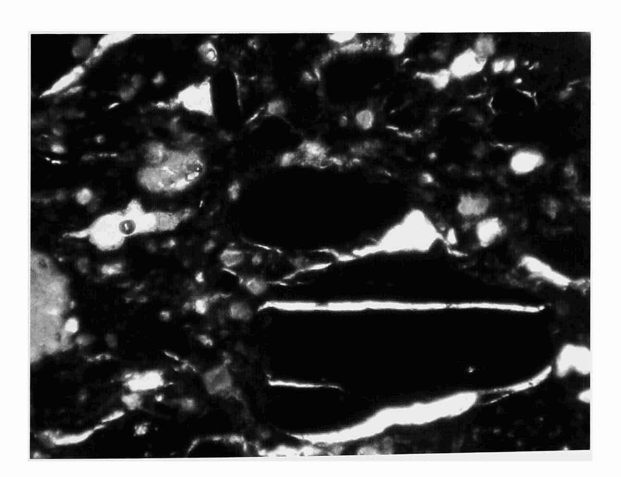
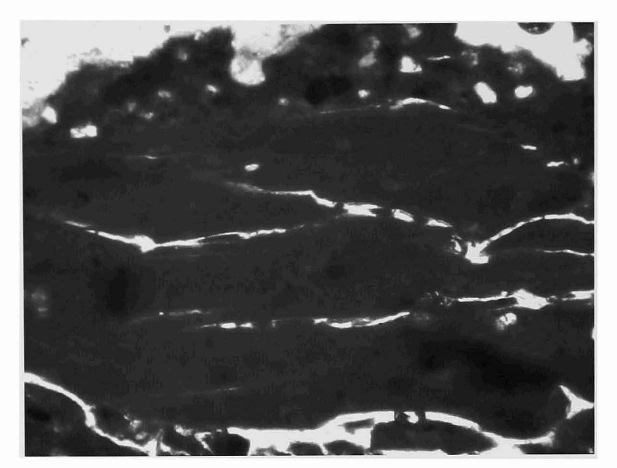


Fig. 5 - A fairly typical 1B fabric (sherd 2009/068) showing an elongate split ARF with adjacent voids in a calcareous matrix containing many fine yellowish calcareous fragments. Part of a larger limestone inclusion is seen on the left. The field of view is 1 mm across.



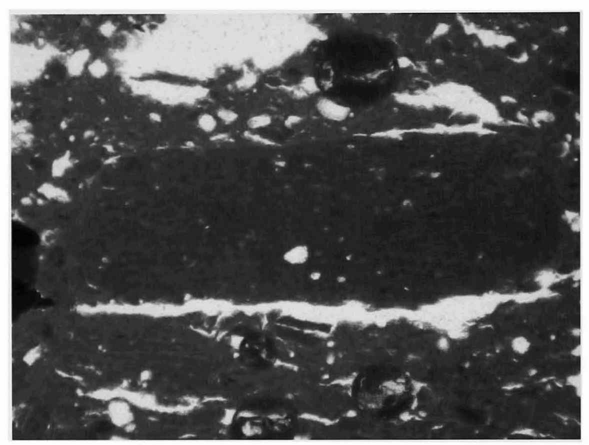


Fig. 6 - Two thin sections of sherd 2353/108 showing elongate ARFs. The upper picture shows a high clay ARF, whereas the ARF in the lower section contains some carbonate and quartz. Although the small inclusions in the matrix are mostly quartz, causing the sherd to be placed in fabric group 1C, the matrix also contains fine carbonate inclusions and thus could be considered intermediate between groups 1B and 1C. The fields of view are both 1 mm across.

fairly distinct sub-varieties A, B and C and less common intermediate forms. It should be noted here that the sub-varieties emerged from the study of the thin sections: they are not readily distinguishable by eye when looking at a washed sherd as excavated.

All the group 1 fabrics may be derived from naturally weathered and redeposited shale or mudstone. The similarity of ARFs and the matrix is very notable under the microscope in some specimens. Shale deposits do occur in the Lebanon and surrounding countries although it has not yet been possible to examine and sample them for comparative purposes.

Goren[3] refers to a lower Cretaceous, ferruginous, shale-rich clay which outcrops widely in the Lebanon, which achieves a high degree of sintering at lower firing temperatures and which was often used to make storage vessels. It may be that fabric group 1 is derived in whole or in part from this or a similar raw material.

There are also similarities between the Sidon fabric group 1 and the "metallic ware" fabric discussed by Greenberg and Porat[4], most notably in the presence of shale inclusions. Other inclusions such as carbonates and quartz are also found in both fabrics but the volcanic inclusions reported in some examples of "metallic ware" have not been seen in the Sidon group 1 fabrics. Greenberg and Porat note that what they call "metallic ware" is also designated by the term "combed ware". The intricacies and variations in the use of terms in this context are further discussed in the section entitled "Terminology problems" at the beginning of Chapter 3 of this volume. "Metallic ware" is so named on account of the ringing tone emitted when vessels or large sherds are struck. This presumably derives from a high degree of sintering and vitrification arising in part from consistently high firing temperatures. In the case of the Sidon fabric group 1, however, although some samples do appear to have been high fired, a significant proportion appear to have been fired at lower temperatures. These similarities and differences raise fascinating questions for future research into the nature, development and dissemination of technical knowledge, aesthetics and raw material preference during the EBA.

From the fabric pie charts at the end of chapter II (p. 61-63), it can be seen that fabric group 1 sherds are present in all the EBA strata at Sidon. The proportion of the number of diagnostic sherds of fabric group 1 rises steadily from 20% in stratum 1 (Chalcolithic/EB I), 25% in stratum 2 (a sand layer), 43% in stratum 3 (earlier EB II) to a peak of 49% in stratum 4 (later EB II and transition to EB III), before declining slightly to 41% in stratum 5 (first EB III phase) and 39% in stratum 6 (late EB III and transition to Middle Bronze Age). The

3 - Y. Goren, 2000, section 2.1.3.

4 - R. Greenberg & N. Porat, 1996, p. 13-18.

peak in EB II parallels the *floruit* of "metallic ware" but the Sidon fabric 1 appears in significant proportion throughout the EBA whereas "metallic ware" is much less common in EB I and EB III.[5]

FABRIC GROUP 2

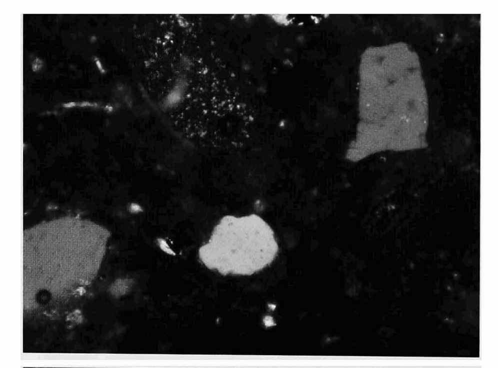
Under the microscope in thin section these fabrics appear coarser, more calcareous, and less dark coloured (possibly less iron-rich) than fabric group 1. The coarseness of the matrix is due to fine limestone and fine angular quartz inclusions. The elongate ARFs are absent or infrequent, differentiating this group from intermediate group 1B-1C sherds, although other iron-rich more rounded ARFs are present, some small and some larger. Fabric group 2 tends to contain irregular elongate voids possibly resulting from burning out of botanical material such as grasses or roots. These fabrics generally contain some rounded limestone fragments, some fossils, some chert, occasional chalcedony, some rounded ARFs and fine iron-rich inclusions (see **Fig. 7**). The group could perhaps be further subdivided, as the larger inclusions are predominantly sub-rounded monocrystalline quartz in some sherds, while in others they are rounded limestone inclusions. There are however intermediate varieties where the amounts of the larger sub-rounded quartz and larger rounded limestone inclusions are similar.

The matrix of fabric group 2 appears both coarser (from fine calcareous and quartz fragments) and more iron rich (to judge by colour at least) than the paler, finer though still calcareous fabric group 5. Nevertheless there are fabrics that appear intermediate between group 2 and group 5.

From the fabric pie charts at the end of chapter II (p. 61-63), it can be seen that fabric group 2 sherds are present in all the EBA strata at Sidon. The proportion of the number of diagnostic sherds of fabric group 1 rises steadily throughout the EBA from 16% in stratum 1 (Chalcolithic/EB I), 25% in stratum 2 (a sand layer), 35% in stratum 3 (earlier EB II), 32% in stratum 4 (later EB II and transition to EB III), 49% in stratum 5 (first EB III phase) to 56% in stratum 6 (late EB III and transition to Middle Bronze Age).

FABRIC GROUP 3

This fabric is generally similar to fabric group 2 but has the distinguishing feature of containing fairly large angular, often rhombic crystals of calcite (see **Fig. 8**). Angular calcite is distinctly rare in natural clay deposits as calcite is a soft and fissile mineral. It is not normally found exposed at the surface of the earth as large crystals, the presence of these large fragments is suggestive of their having been freshly crushed and deliberately added by the potter. Their significance and purpose in the fabric is thus a matter of some interest.



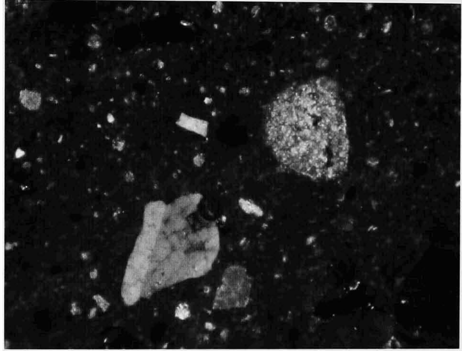


Fig. 7 - Two areas of a thin section of sherd 2013/068 which has a fairly typical group 2 fabric. Each field of view is 1 mm across. The upper image shows fairly large sub-angular to sub-rounded monocrystalline quartz grains around 0.15 mm in diameter and a similar sized grain of chert (speckled). The lower view also shows a rounded calcareous fragment. The matrix contains fine calcareous material and fine angular quartz.

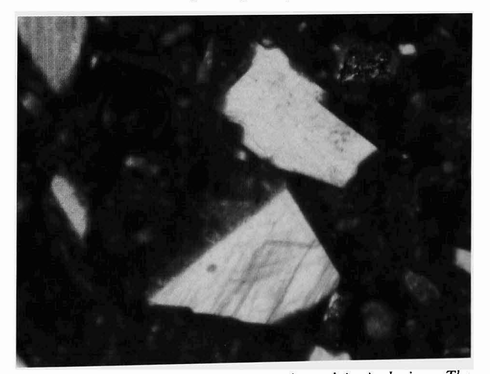
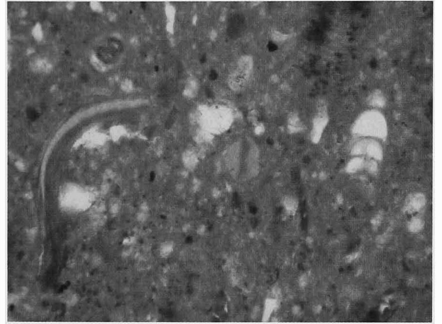


Fig. 8 - Sherd 2350/078 showing angular calcite inclusions. The field of view is 1 mm across.

5 - R. Greenberg & N. Porat, 1996, p. 12-13.

From the fabric pie charts at the end of chapter II (p. 61-63), it can be seen that fabric group 3 sherds first appear as 5% of the diagnostic sherds in stratum 3 (earlier EB II) whereafter they continue to appear at a broadly similar level, constituting 7% of the diagnostic sherds in stratum 4 (later EB II and transition to EB III), 9% in stratum 5 (first EB II phase) and 5% in stratum 6 (late EB III and transition to Middle Bronze Age).





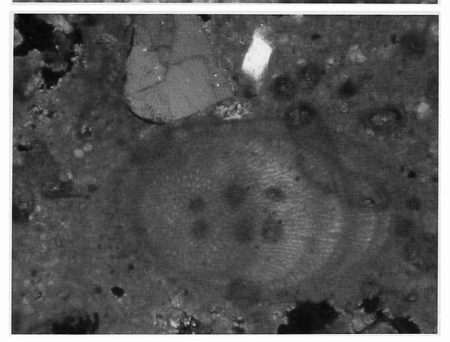


Fig. 9 - Three areas of a thin section through sherd 3785/107 showing a variety of fossil fragments. These may help to narrow down the potential source of raw material but this has not yet been attempted. Each field of view is 1 mm across. This is a fossil rich example of a group 5 fabric.

A rare fabric designated group 4 has been found at the College site. It is an iron-rich fabric containing many fossil fragments and a little basalt. It will not be considered further here, as it has not yet been noted in secure EBA contexts.

FABRIC GROUP 5

This is a distinctive very fine-grained light buff or beige coloured calcareous fabric containing many foraminifera and other small fossil fragments. In thin section the fabric often looks mottled down the microscope, often with blotches or streaks of more reddish clay. It usually contains no noticeable quartz but there is some quartz in some samples, and in others there are large limestone fragments (see **Fig. 9** and **10**).

In hand specimen, the group 5 sherds are often very powdery, probably as a result of being low fired for a short period. The surfaces are off-white and sometimes show remains of a red (or more rarely black) slip. They generally have a thick black core as a result of a short duration of firing, often with black haloes where organic inclusions have been pyrolysed and left a deposit of carbon (see **Fig. 11-13**).

From the fabric pie charts at the end of chapter II (p. 61-63), it can be seen that fabric group 5 sherds are present in all the EBA strata at Sidon. They display the

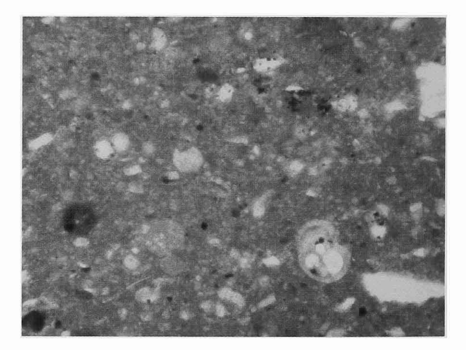


Fig. 10 - This is another example of a group 5 fabric (11185/273) showing foraminifera. The field of view is 1 mm across.

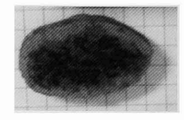
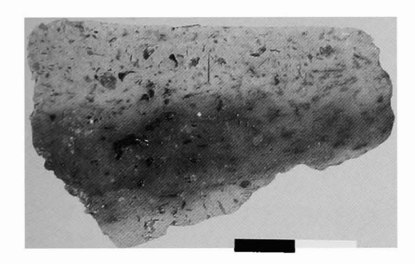


Fig. 11 - Section through a fabric five handle showing a thick black core and blotchy black deposits around areas of high organic content. The lines in the background are 5 mm apart.



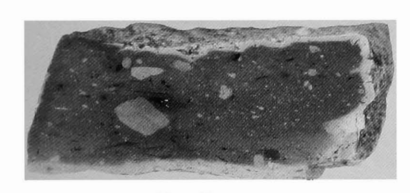
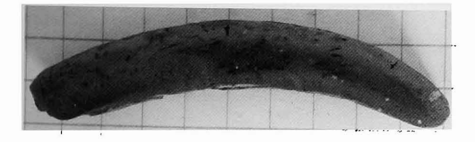


Fig. 12 - Typical group 5 sherds seen in cross section. The scale is in mm.



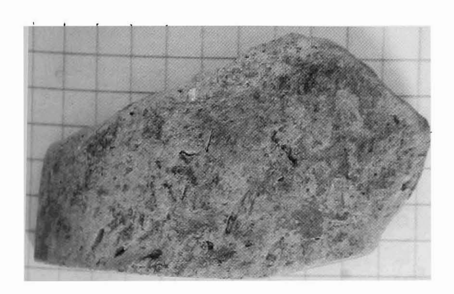


Fig. 13 - A group 5 fabric showing remains of red slip on the surface and depressions where organic material has burnt out. (Sherd 11125/273). The lines in the background are 5 mm apart.

opposite trend to fabric group 2 in that the proportion of the number of diagnostic sherds of fabric group 5 decreases steadily from 64% in stratum 1 (Chalcolithic/EB I), 50% in stratum 2 (a sand layer), 17% in stratum 3 (earlier EB II), 12% in stratum 4 (later EB II and transition to EB III), 1% in stratum 5 (first EB III phase) and 0.3% in stratum 6 (late EB III and transition to Middle Bronze Age). It is interesting that although fabric 5 is present in all strata, it shows a sharp step-like, rather than continuous, decline from predominance in Chalcolithic/EB I times, to a minor proportion in EB II, and distinct rarity in EB III.

CONCLUSIONS

The analyses of the ceramic fabrics have allowed the diagnostic sherds to be classified visually according to fabric. The various fabrics have been correlated to vessel forms and decoration and the changes in the occurrence of the fabrics through the different periods of the Early Bronze Age have been mapped. Fabric 1 is present throughout being most common in EB II and EB III. Fabric 2 increases steadily throughout the EBA. Fabric 3 is present as a minor fabric in EB II and EB III only. Fabric 5 decreases step-wise from predominance in the Chalcolithic/EB I to *ca.* 15% in EB II and rarity (*ca.* 1%) in EB III.

In terms of composition, the differences between the fabrics are most marked between the light buff low-fired powdery group 5 sherds with their many fossil fragments and the rest, although even here there do appear to be some examples between fabric group 2 and group 5. The elongate ARFs distinguish group 1 from group 2, and the latter contains occasional chert and more fossil material. It is not impossible however that if the mudstone and shale from the source that supplied the raw material for fabric group 1 was broken down further it might also contribute to fabric group 2. Group 3 is a calcite-tempered version of group 2.

It will be of great interest to compare the fabrics from the currently exposed EBA contexts to those revealed by future excavations in Sidon and also to ceramic fabrics from other sites in the Sidon area and beyond. It will also be important to try to gain some closer indication of the possible geographic origins of some of the fabrics, by comparison with ceramics from known production sites and by comparison with raw material gathered from known geological sources. If sources can be identified for some or all of the ceramics, this will provide valuable indications of the areas with which the occupants of the College site may have had direct or indirect contact. This will be an important contribution to building a fuller picture of the social, economic and cultural life of the port city of Sidon and its surroundings in the Early Bronze Age.

Chapter VIII. The Early Bronze Age Industries of Sidon ("College Site" Excavations)

Corine Yazbeck*

INTRODUCTION

Chipped stone tools were recovered from the recent excavations of the "College Site" in Sidon. Five different and successive horizons (referred to here as stratum 1, 2, 3, etc) have so far yielded a total of 257 stone artefacts. These represent several periods that extend from the late Chalcolithic/Early Bronze Age I (this is the deepest level, stratum 1, resting on the bedrock) to the end of the Early Bronze Age.[1] The material from the lower three strata are presented in this study.[2]

In spite of the small area uncovered to date (see p. 11-12), this site offers a rare opportunity to study lithic assemblages from stratified contexts of this period. Although the samples are small sized, they have enabled us to examine the evolution of lithic industries over a time-span for which published studies are, with one exception, totally lacking in Lebanon (the exception is Dakerman which lies in close proximity). Although it is generally assumed that with the introduction of copper in the Chalcolithic metal implements replaced stone tools, it has been demonstrated at various sites of the Levant that stone tools continued to play an important role in Bronze Age economies. This is particularly true in the Early Bronze Age I where the development and spread of the Canaanean blade technology suggests that it was the object of craft specialization and maybe trade[3].

CHIPPED STONE INDUSTRIES

Out of the assemblages presented here, that from stratum I which corresponds to the late Chalcolithic/ Early Bronze Age I, represents the largest collection of lithic artefacts.

STRATUM 1: CHALCOLITHIC/EARLY BRONZE AGE I

This collection is the most numerous and contains 146 artefacts most of which are debitage and waste (77%). Tools form only 18% of the assemblage.

Raw materials and blanks[4]

A wide variety of chert was used by the Sidon knappers. The use of the various types was unequal and can be summarized as follows:

A semi-fine grained chocolate chert with a chalky cortex most probably of Cretaceous (Cenomanien) origin (28%). Some of the items contain whitish inclusions.

- A coarse-grained nummulitic chert (probably Eocene) of beige/brown colour. This has a chalky cortex although some implements have a battered cortical envelope (13%).
- A fine-grained grey chert, sometimes translucent.
- A fine-grained toffee coloured chert.
- A fine-grained striped chert of beige/brown colours.
- A semi-fine grained limestone and nummulitic limestone (10%).

Cretaceous and Eocene strata are common in the Sidon area and since the chalky cortex is generally indicative of primary sources of raw material, it is assumed that acquisition was from local sources. On the other hand, some cortical flakes were clearly extracted from chert pebbles of beige colours. These have battered cortex indicating they perhaps came from Wadi or beach gravels and this points towards the use of secondary sources. Most of the fine-grained varieties such as the toffee-coloured and the striped chert implements

* I am grateful to Eric Coqueugniot and Andrew Garrard for their critical comments and helpful suggestions.

1 - These levels were assigned to the Early Bronze Age on the basis of ceramic typology.

2 - The samples from strata 4 (12 pieces) and 5 (3 pieces) are very tiny and not diagnostic. The material is described briefly at the end of this article.

3 - S. A. Rosen, 1997.

4 - This simplified presentation is restricted to the visible properties of the raw materials. In order to provide more precise information, more detailed analysis would be required involving provenance studies, mineralogical examination etc.

did not have any cortical remnants surviving, therefore we have no indication of the type of blanks nor of the type of sources.

With the exception of blades, blade blanks and tools on blades which were made on fine or very fine textured chert (only two pieces were made in the coarse grained nummulitic chert), there was no evidence for the differential use of any particular raw material. As is usual for this period, there is no evidence for the use of obsidian implements.

Condition

The condition of the artefacts is generally good although a few items have battered edges. There are also some broken pieces. Numerous artefacts were covered with calcareous concretions and 20 pieces seem to have been heated, although maybe accidentally.

Terminology and classification

There are several systems of classification for blade tools from this time-period and particularly for sickle blades and segments.[5] In this study, every truncated blade will be classified as a segment regardless of its dimensions[6] and every simple (not truncated) and complete blade showing characteristics such as retouch and/or silica sheen will be classified as a sickle blade.

Descriptive typology

1-Debitage and waste: 112 artefacts.

a-Flakes: 62 artefacts.

These can be separated into cortical or primary flakes (43 including fragments) and plain flakes (19 including fragments). Almost all flakes have the large and thick bulbs characteristic of hard hammer technique, with no platform preparation.

b-Blades/bladelets: 4 artefacts.

- Three distal ends of simple blades. One is a half-cortical blade made from a greyish fine-grained chert. The second one is from a plain blade made from a semi-fine grained nummulitic chert. Both are simple fragments with no truncations or retouch. The third one is slightly retouched on the dorsal face.
- One backed truncated blade/bladelet made from a semi-coarse grained toffee chert and showing a truncation on one of its ends.

c-Core-trimming elements: 6 artefacts.

Two are tablets, and four are rejuvenation flakes. Most of these are made from nummulitic chert.[7]

d-Waste and debris: 24 pieces

e-Cores:[8] 4 artefacts.

- Two are globular and indeterminate and are made from nummulitic limestone. Their diameter varies between 8 cm and 3 cm.
- A core on flake made from a brown coarse-grained chert (dimensions are: 4 x 4.3 x 0.8 cm).
- A fragment of a core made on a cortical flake from a fine-grained chocolate chert. Dimensions are: 4 x 4.2 x 1 cm.

f-Pebbles/hammers: 12 items.

Most of these are complete pieces and some show slightly battered edges suggesting that they could have been used as stone hammers.

2-Tools: 26 implements.

a-Retouched pieces: 11 implements.

Four of these are slightly and very partially retouched while the seven others can be considered as *ad hoc* or informal tools, mainly of the side-scraper and denticulate type. Most of the latter are made on core-trimming elements. Average dimensions are: 4 cm length, 3.3 cm width and 0.9 cm thickness.

b-Denticulates: 5 implements (**Fig 1: c, d; Fig 2: a**).

These are also informal tools, often made on a variety of blanks. These exhibit minimal retouch, often limited to one edge. Average dimensions are: 5 cm length, 4 cm width and 0.8 cm thickness.

c-Scrapers: 6 implements (**Fig 2: b, c**).

- End-scraper: 2 items. These are informal tools, made on cortical and primary flakes. No blade blanks were used in their manufacture.
- Side-scrapers : 2 items. One is a simple straight side-scraper made on a rejuvenation flake. The other is a sort of informal multiple scraper made on a plain flake.
- Core-scrapers: 2 items. The average dimensions of all scrapers are: 6.8 cm length, 4.9 cm width and 1.6 cm thickness.

5 - M.-C. Cauvin, 1983, p. 63-79 ; S. A. Rosen, 1997.

6 - M.-C. Cauvin, 1983, p. 63-79.

7 - The term chert is used here in its broader meaning and includes varieties such as flint.

8 - Chips are practically absent and this is probably due to recovery techniques as sieving was not systematically practised during the excavations.

d-Sickle blades and segments:[9] *3 implements.*

The first one is made from a fine-grained chocolate chert. It is bi-truncated and has semi-abrupt retouch on one edge and on the ventral face. This specimen lacks the sickle sheen[10] characteristic of plant harvesting (**Fig 1: a**).

- The second one is a simple blade segment not truncated, with retouch on the ventral face limited to one edge. This one is slightly glossy (**Fig 1: b**).

The third one is a truncated segment made from a fine-grained chocolate chert. It shows irregular edge damage on the ventral and dorsal faces and on both edges.

e-Bifacial knives: 1 fragment (**Fig 2: d**).

It is a fragment of a typical Egyptian bifacial knife and this implement is strongly suggestive of Early Bronze Age I industries.[11] Dimensions are 7.2 cm x 3.3 cm x 0.9 cm.

3-Indeterminate pieces: 8 artefacts.

DISCUSSION

Typological characteristics

The tool category contains 18% of the total artefacts. Common tools such as scrapers and *ad hoc* and informal tools form the major group amongst the tool classes (88%), whereas blade blanks and tools on blades are rare (12%). In general, the dimensions and morphology of the domestic tools do not reflect any standardization. In the case of the blades, blade blanks and blade tools, the sample is too small to be certain whether there is standardization. Within the domestic tools categories it is worth noting that no tabular scrapers or fan scrapers have been found although they are characteristic of the time-period.

Technological characteristics

As evidenced by characteristic elements such as cortical and primary flakes, almost all *ad hoc* tools appear to have been manufactured at the site, whereas evidence for the local manufacture of blade tools is completely lacking. For instance, crested blades and cores are totally absent and tablets are extremely rare. In addition, almost all blades and tools on blades have been made on semi-fine or fine-grained chert whilst *ad hoc* tools were made on various types of chert. Plain flakes greatly outnumber cortical flakes, which probably indicates that the first stages of the manufacturing process for the production of domestic tools took place away from the site or outside the excavated area. In support of this, the cores recovered are medium to small sized and consequently they could not have been used for the production of domestic tools such as side-scrapers. The latter could have been manufactured from the large blocks of nummulitic chert found in various locations in the excavations.

STRATUM 2: THE SAND LAYER SEALING STRATUM 1

This level yielded 68 artefacts, most of which comprise debitage and debris (66%). Tools are also well represented and form 31% of the total artefacts. Sickle blades and segments are much more numerous (9 implements) than in stratum 1 where they were rare.

Raw material and blanks

Raw materials are less varied than in stratum 1. Chocolate coloured chert (coarse or fine-grained) is the commonest accounting for 29%. It is followed by nummulitic chert (16%). The remaining artefacts are made from brown, beige or toffee coloured chert, which was generally coarse, or semi-coarse grained. Unlike stratum 1, no limestone artefacts were recovered. However, there was a new form of raw material in the form of two white quartzite flakes.

Descriptive Typology

1-Debitage: 45 artefacts.

a-Flakes: 31 artefacts.

As in stratum 1, these can be separated into cortical or primary flakes and plain flakes with the former (27) greatly outnumbering the latter (4). Here too, technological characteristics such as large and thick bulbs illustrate the use of hard hammer technique with no platform preparation.

b-Core-trimming elements: 2 rejuvenation flakes.

c-Blades: 5 artefacts.

All of these are fragments, none is complete.

- 3 are middle sections of plain blades.
- 2 are distal ends of plain blades; only one has a truncation.

Average dimensions are: 5.6 cm length, 2.2 cm width and 0.3 cm thickness.

9 - During fieldwork, several blocks and boulders of nummulitic chert were uncovered. Some were obviously cores and most of these were re-used in the construction of the Middle Bronze Age structures.

10 - In this study the classification of sickle blades and sickle segments is based on the technological and morphological characteristics of these implements and not just on the presence of silica sheen.

11 - S. A. Rosen, 1997.

d-Waste and debris: 5 pieces.

e-Cores: 2 artefacts.

- One is a flake core made from a semi-fine grained beige chert. Dimensions are: 4.4 x 5.1 x 5.6 cm.
- One is an indeterminate globular core made from the fine-grained chocolate chert. Its diameter varied between 2.5 and 2.8 cm.

2-Tools: 21 implements.

a-Retouched pieces: 5 scraper type tools made on flakes (**Fig 3: a**).

Two are made on flake fragments and one is made on a rejuvenation flake. The two others are made on plain flakes. Most of these implements exhibit a marginal irregular retouch, often limited to one edge. Average dimensions are between: 9 and 3 cm length, 6.3 and 2.9 cm width, and 1.5 and 0.9 cm thickness.

b-Denticulates: 2 implements.

One is made on a cortical flake and is very marginally retouched. Dimensions are: 5.1 x 2.8 x 1.2 cm. The other is made on a plain flake and shows thinning of the bulb. Dimensions are: 4.3 x 3.1 x 0.9 cm.

c-Burin : 1 implement.

This is an atypical dihedral burin made on a plain flake.

d-Scrapers: 4 implements.

- Double side-scraper: 1 artefact (**Fig 3: c**).

This one is made on a primary flake. Retouch is not invasive and whilst it is partial on one edge, it is total on the other edge. Dimensions are 7.5 x 3.8 x 2.2 cm.

- Core-scrapers: 3 artefacts.

The three are made on relatively massive blanks and retouch is partial in two specimens. Only one specimen shows invasive retouch.

e -Blade-tools: 9 implements.

- Sickle blades: 1 artefact.

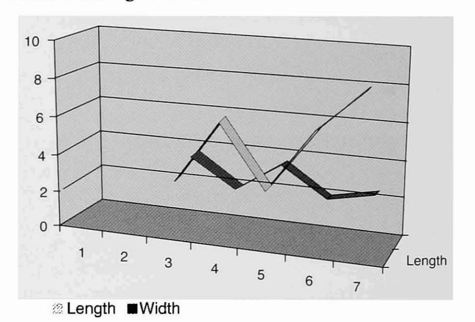
This is a distal end of a sickle blade; the blank is half-cortical and does not have a rectilinear profile. Only one edge is retouched this being on the ventral face and there is no evidence of silica sheen.

- Sickle blade segments: 8 artefacts.

In general the sickle blades and segments are made in a fine-grained chert. No sickle blades were made on nummulitic coarse-grained chert as is the case for other tool categories. Dimensions vary between 8.5 and 3 cm for the length, 3.6 and 2 cm for the width and 0.4 and 0.1 cm for the thickness. All the sickle blade segments are regular with a rectilinear profile, but only two have parallel ridges with a trapezoidal section. Five of the sickle blade segments have a single truncation and three are bi-truncated.

The nature of the five single-truncated sickle blade segments:

One is made on very fine-grained toffee chert. It is very regular although it does not have parallel ridges and a trapezoidal section. The distal end is broken/fractured. Both edges are slightly retouched on the dorsal face and show slight silica sheen along one of the edges. Dimensions are: 8.5 cm length, 2.5 cm width, 0.4 cm thickness (**Fig 3: b**). A second shows abrupt retouch on the dorsal face with no evidence of silica sheen. The other three show abrupt retouch on the ventral face and one of these is very slightly glossy (**Fig 3: e**). Average dimensions are: 6.7 cm length, 2.5 cm width and 0.32 cm thickness. These elements show some standardization in their width but not in their length, as can be seen in the figure below.



The nature of the three bi-truncated sickle blade segments:

Two have an abrupt retouch on the dorsal face and along one edge and both have silica sheen along one edge (**Fig 3: d**). The third one is not retouched, nor glossy, but shows edge-damage. The average dimensions are: 8.2 cm length, 1.8 cm width and 0.4 cm thickness. Unlike the truncated elements, these show some standardization in their dimensions.

3-Indeterminate pieces: 2 artefacts.

Canaanean Blade Technology

Although Canaanean blade technology is not a main focus of this paper, it would be useful to summarize aspects of it here. Most authors agree that Canaanean blade technology developed during the Early Bronze Age. However, classification of implements into Canaanean or non-Canaanean is in most cases subjective since there is no general classification system. Nevertheless, some morphological characteristics, if they are found together

(which is rarely the case in practice) are indicative, such as the regularity of the blade, a rectilinear profile, and large dimensions (length and width). Since the attribution to a Canaanean technology is no simple matter, the very few implements that might suggest the existence of this technology at Sidon remain speculative.

DISCUSSION

Typological characteristics

Unlike stratum 1, where domestic tools formed the majority of the tool category and where blade tools only formed a very low percentage, in stratum 2 blade tools are very well represented in the tool category accounting for 42%. As in stratum 1, atypical forms such as *ad hoc* scrapers and denticulates are common (57%) but they show a larger variety of forms. Within the blade tools there is a slight increase in the percentage of sickle blades and segments. Although more numerous, blade tools are not standardized and the morphology and the dimensions are variable. On the whole and with the exception of blade tools, the general characteristics of this assemblage are very similar to those of stratum 1.

Technological characteristics

As in the previous stratum, plain flakes are predominant (27) and greatly outnumber cortical flakes (4). Since characteristic elements indicative of blade production are lacking here (crested blades, tablets and cores), we can reasonably assume that debitage and waste only relates to the manufacture of the domestic tools. The near absence of cortical flakes strongly suggests that the first stages of the knapping process did not take place on the site, or if they did the operations occurred in an area which is yet unexcavated. Within the tools category, almost all the *ad hoc* tools were made on the by-products of the knapping process such as primary flakes or even core-trimming elements. Core-scrapers and massive side-scrapers are technically more refined. These were made on large plain flakes with thick bulbs, the latter being very often thinned or truncated.

STRATUM 3: EARLY BRONZE AGE II A

This is the smallest assemblage (43 artefacts), although a similar area was uncovered to that in the underlying strata. Debitage and waste form 63% of the total artefacts. Tool categories are practically the same as in the two other strata, tools forming 35% of the total artefacts.

Raw material and blanks

Nummulitic chert is also dominant in this stratum (23%), followed by cherty limestone, whilst chocolate fine-grained chert only represents 9%. As in other strata, other types of chert are also present including fine-grained toffee-coloured and semi-coarse and coarse-grained beige and grey coloured chert.

Descriptive Typology

1-Debitage: 27 artefacts

a-Flakes: 20 artefacts

These can be separated into cortical or primary flakes and plain flakes with the former (14) substantially outnumbering the latter (6). Here too, technological characteristics such as large and thick bulbs illustrate the use of hard-hammer technique with no platform preparation.

b-Blades and bladelets : 3 artefacts

Two consist of the proximal ends of plain blades. The third one is a complete simple small blade (**Fig 4: e**).

c-Waste and debris: 2 pieces

d-Cores: 2 artefacts

- One is a fragment of an indeterminate core made from limestone. It probably served for manufacturing flakes. Dimensions are: 14.2 x 2.6 x 1.7 cm.

The second one is a bladelet/flake core, made from a fine-grained toffee coloured chert. This is the only example from all three strata. Dimensions are: 4.5 x 2 x 1.5 cm.

2-Tools: 14 implements

a-Retouched pieces: 6 examples on flakes.

- 2 are of denticulate type.
- 2 are retouched cortical flakes.

1 is an atypical end-scraper on a plain flake.

1 is an *ad hoc* side-scraper made on the distal end of a cortical flake.

Average dimensions are: 5 cm length, 3.9 cm width and 1 cm thickness.

b-Scrapers · 6 implements

- Side-scraper: 5 tools

Four are simple straight ones made on either primary (1) or plain (3) flakes. The other is a straight double scraper, made on a blade blank.

- Core-scraper: 1 tool (**Fig 4: d**).

Average dimensions for all the scrapers are: 6.7 cm length, 4 cm width and 1.8 cm thickness.

c-Blade-tools: 2.

- Sickle segments: 2 tools

One is a segment made from a fine-grained brown chert. It is a simple unretouched segment but was obviously used as there is edge damage and sickle gloss on one of its edges (**Fig 4: c**). Dimensions are: 5 x 1.8 x 0.3 cm.

The second one is made from a toffee/brown fine-grained chert. It is a bi-truncated segment with a rectilinear profile, parallel ridges and a trapezoidal section, and part of the bulb is thinned by semi-invasive retouch. One of its edges is retouched by irregular small denticulations on both faces. It shows edge damage on the left edge and sickle gloss on the right edge (**Fig 4: b**). These characteristics might suggest that it is a Canaanean blade. Dimensions are: 9.2 x 2.5 x 0.5 cm.

3-Indeterminate pieces: 1 item.

DISCUSSION

Typological characteristics

Tools represent 32% of the total artefacts, a percentage which is closer to stratum 2 than 1. However, as in stratum 1, the blade component forms a low percentage. Domestic tools form the major category of tools and are represented in a similar proportion to the other strata. They are dominated by *ad hoc* forms of denticulates and miscellaneous scrapers. stratum 3 was the only phase with a bladelet/flake core, but no bladelets were found in association.

Technological characteristics

As in other strata, debitage and waste form the major artefact category and it seems to derive entirely from the production of domestic tools. As in the other phases, there are no characteristic elements from the manufacture of blade tools.

CONCLUSIONS

This study shows continuity in the manufacturing process throughout all three strata. This is despite a slight difference in the archaeological nature of stratum 2 where no structures were evidenced although lithic implements suggest that the site was not completely abandoned. Neither abrupt changes nor developmental trends can be observed in the lithic assemblages from the sequence. Typological and technological characteristics are practically identical throughout the 3 strata and can be summarized as follows:

- Abundant debitage.
- Significant proportions of tools, and in particular domestic tools.
- With the exception of stratum 2, the blade component shows low percentages.

As elsewhere on Early Bronze Age sites in the Southern Levant,[12] the technological and typological characteristics of the Sidon assemblages suggest that there were at least two separate industries or forms of production represented at the site. The first one was concerned with the manufacture of the typical domestic tool-kit comprising implements such as denticulates, scrapers, notches and others. Although the initial stages of raw material preparation (primary reduction) may have taken place away from the site or in an area not yet excavated, the completion of these tools seems to have been undertaken on the site. On the other hand, sickle blade tools may have resulted from either non-local or local specialized production, as none of the characteristic elements of the manufacturing process (crested blades, tablets and cores) were found in the excavated area of the site. Unlike other domestic tools, the blades appear to have been made from a variety of fine-grained chert. They do not show any notable standardization in their morphology. There are two possible explanations:

- One possibility is that a specific area of the site (not found) was reserved for the production of such specialized tools.
- Another possible explanation is that this type of implement was not manufactured by the occupants of the site, but was introduced to the site as finished or half-finished implements.

Anyhow, the presence of glossy sickle blades demonstrates that the inhabitants of Sidon practiced agricultural activities such as harvesting wheat or cutting reeds.

Due to the small area of the site so far uncovered and consequently to the small size of the samples, interpretation is preliminary and should be treated with caution. It is highly probable that the collections at hand do not represent the entire range of lithic production that existed at Sidon. Nonetheless, Saida's settlement is in the direct vicinity of an important and possibly contemporary site, Dakerman.[13] In the latter, the stone industries show different characteristics from those of Sidon. Most of the artefacts recovered in the late Chalcolithic level were made on local nummulitic chert. Moreover, the industries were specialized – unlike Sidon – and clearly oriented towards the production of sickle blades (sickle blades form 66% of the total of the artefacts). In addition, the assemblage contains blade cores.

As for comparisons with other regions of the Levant, Saida's samples are too small to enable close parallels to be made with other contemporary assemblages. It is hoped that future fieldwork will provide additional data which will allow a more complete understanding of the various aspects

12 - S. A. Rosen, 1997.

13 - R. Saïdah, 1979; F. Hours, 1979.

of the Early Bronze industries at this site and its place in the wider Levant.

Stratum 4 (12 pieces)

This small collection consists of the following items:
- Half of the items are cortical and primary flakes (6 pieces including fragments). Large and thick bulbs show the use of hard hammer technique.

Two middle sections of blades.
- One rejuvenation flake.
Three pieces of waste and debris.

Stratum 5 (3 pieces)

It consists of 2 waste pieces and one rejuvenation flake made on striped pink-beige chert.

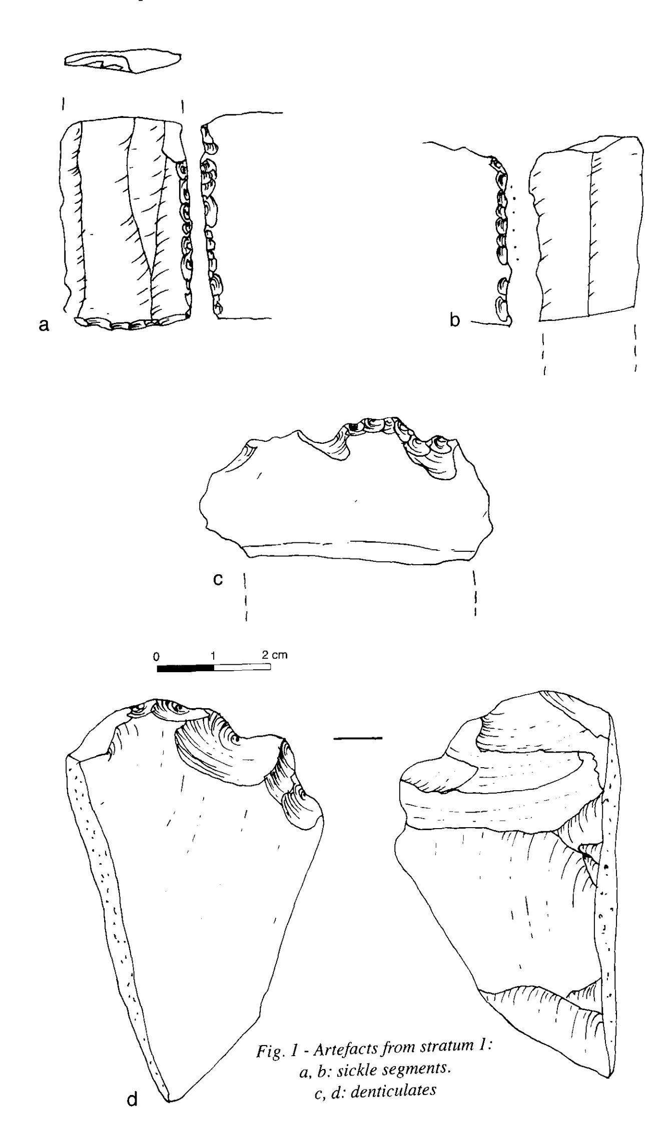


Fig. 1 - Artefacts from stratum 1: a, b: sickle segments. c, d: denticulates

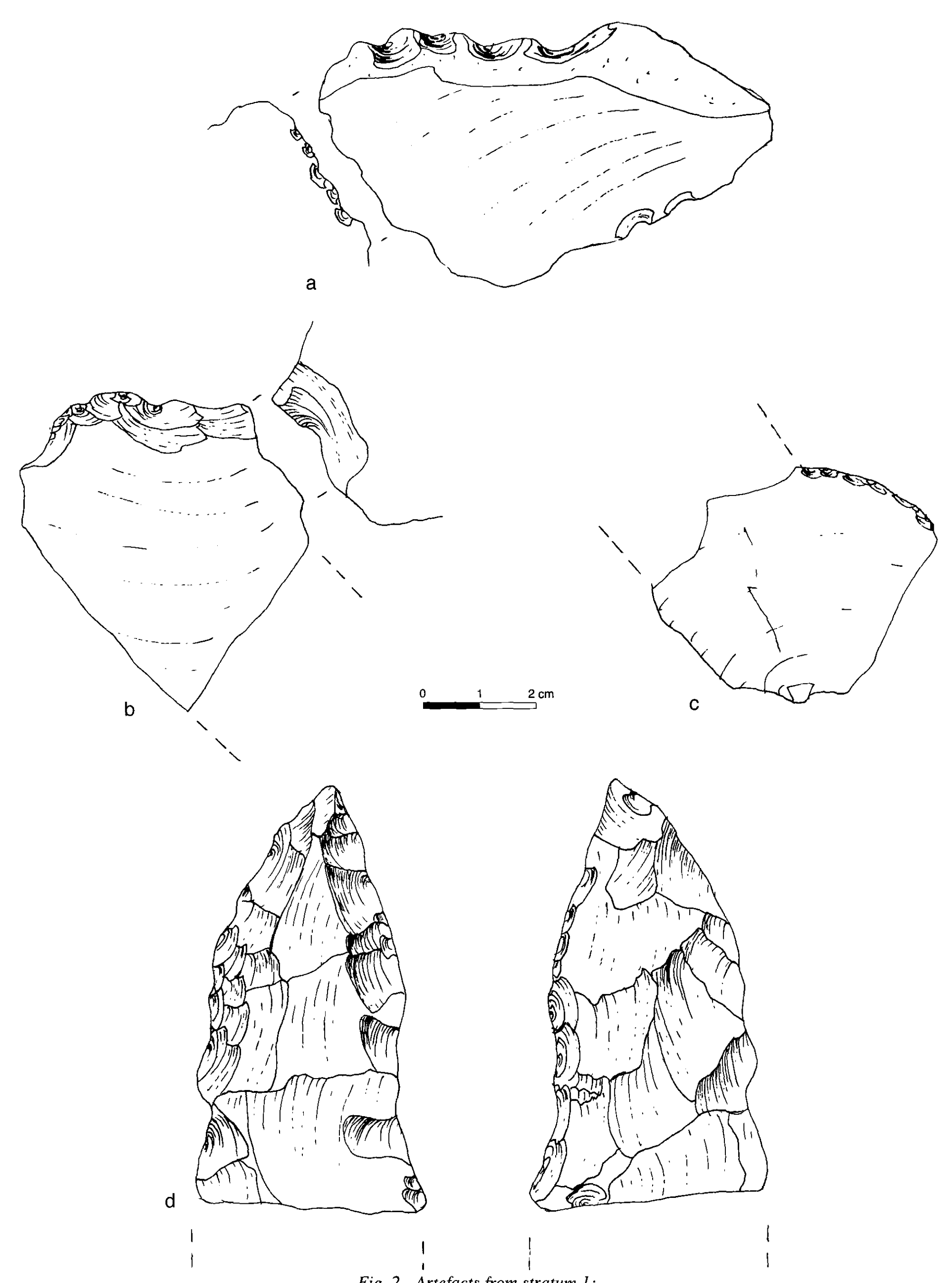


Fig. 2 - Artefacts from stratum 1:
a, b: denticulates, c: scrapers, d: Egyptian knive.

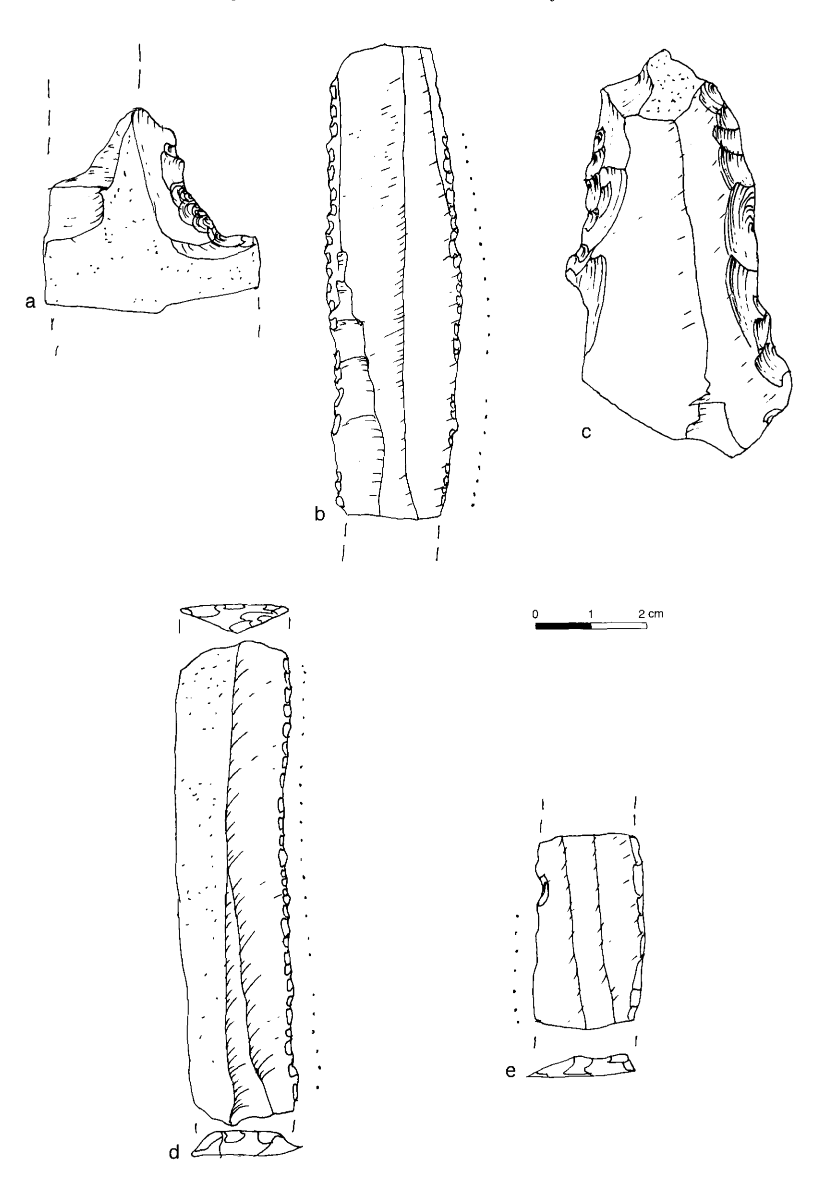


Fig. 3 - Artefacts from stratum 2:
a: scraper, b, d: sickle blades, c: double scraper, e: sickle segment.

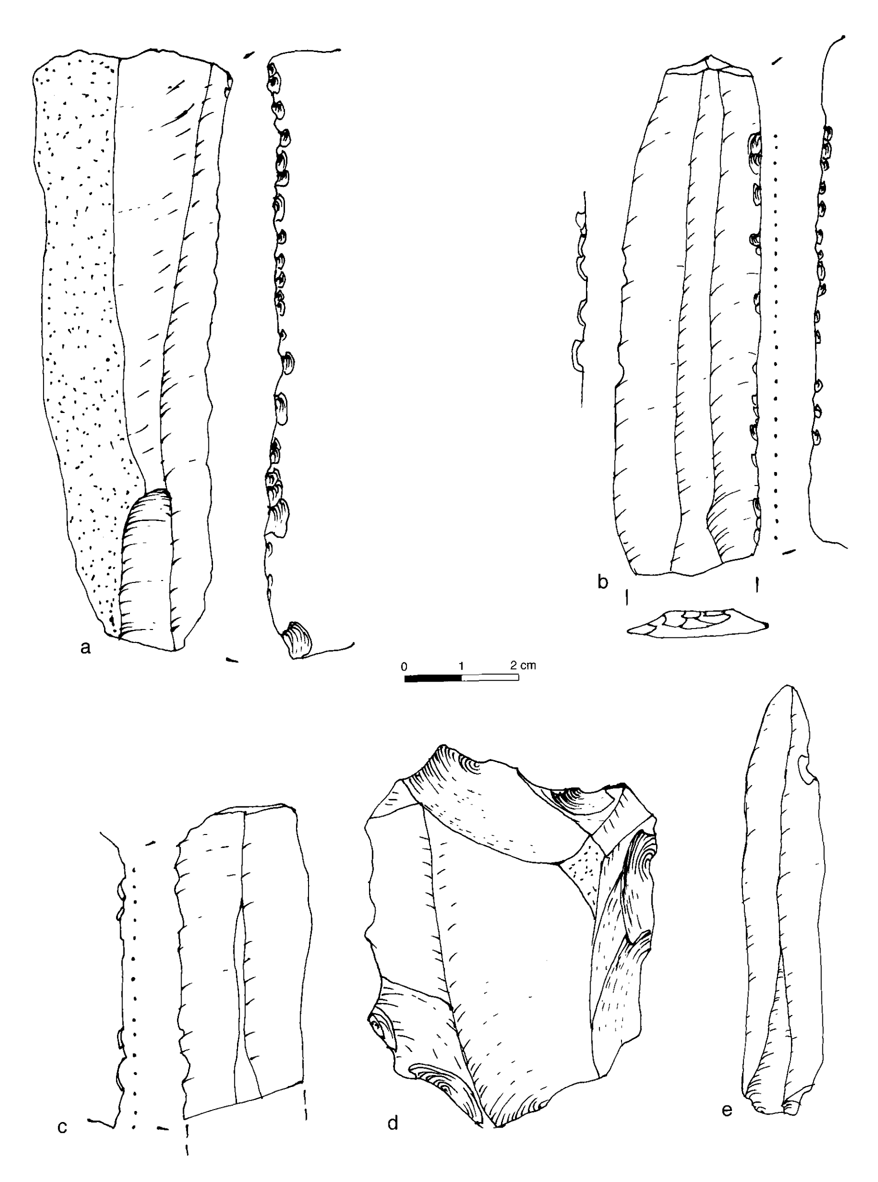


Fig. 4 - Artefacts from stratum 3:
a, b: sickle blades, c: sickle segment, d: core-scraper, e: blade.

Chapter IX. Étude de la faune du Bronze ancien à Sidon

Emmanuelle Vila

INTRODUCTION

État de la question

L'analyse de la faune des niveaux du Bronze ancien de Sidon a été menée lors d'une mission d'étude au Liban en avril 2003. L'étude des restes fauniques du site de Sidon constitue un apport important pour la recherche archéozoologique. En effet, les faunes archéologiques au Liban sont très peu connues, car les travaux publiés jusqu'à présent sont rares : il faut citer principalement Ksar 'Akil [1], pour le Paléolithique, Tell Labweh [2] et Sukas [3] pour les périodes néolithiques, Kamid-el Loz [4] pour le Bronze moyen et récent et pour l'Âge du Fer. D'une manière générale, en dehors de la région du Levant sud où les études archéozoologiques sont particulièrement nombreuses en dépit du fait qu'elles portent parfois sur des échantillons très réduits [5], peu de faunes du littoral de la Méditerranée orientale sont étudiées (en Syrie, Ras Shamra [6] et Ras al Bassit [7]). Ce type d'étude à Sidon pose donc un premier jalon dans la connaissance de l'exploitation des animaux aux époques anciennes sur le littoral libanais.

De plus, sur ce site, l'occupation longue et relativement continue du Bronze ancien à l'Âge du Fer [8] est tout à fait adéquate pour pouvoir établir des comparaisons entre les différentes périodes et suivre l'évolution de la place des animaux au cours du temps. L'étude qui suit présente la faune provenant des couches du Bronze ancien. Ces couches ont livré plus de 2600 vestiges de faune, dont plus de 2300 de faune mammalienne. Parmi ces derniers, un échantillon quantitativement valable de plus de 700 restes a été déterminé spécifiquement.

Remarques préliminaires

La faune n'a pas fait l'objet de tamisage, elle a été soigneusement récoltée à la main, lavée et stockée dans les locaux de fouille à Sidon.

Tous les restes ont été inventoriés et déterminés sur place. Quelques-uns, en raison de difficultés de détermination, ont été rapportés en France pour vérifier l'attribution qui avait été faite. L'étude des poissons et des tortues est en cours. Les restes osseux sont en assez bon état de conservation. Un certain nombre porte des stigmates de découpe. Ce sont manifestement des déchets de boucherie et de consommation, certains pourraient être également des chutes de matière première utilisée dans l'artisanat. La distinction délicate entre les moutons et les chèvres a été faite en suivant les travaux de J. Boessneck, H. H. Muller et M. Teichert, ceux de W. Prummel et H. J. Frisch ainsi que les travaux sur les dents et les mandibules de S. Payne, de D. Helmer et de P. Halstead et P. Collins [9]. Les mesures ont été prises selon A. von den Driesch [10]. Les estimations et les courbes d'âge à partir des dents, stade et indice d'usure, ont été faites pour les moutons d'après E. Vila [11], pour les bovinés d'après P. Ducos [12] et E. Vila [13], pour les porcs d'après P. Ducos [14] et pour les sangliers d'après K. H. Habermehl [15] Les estimations des âges sur les os longs du squelette en fonction des stades d'épiphysation suivent presque exhaustivement les travaux de I.A. Silver [16] Les mesures présentées dans les tableaux et les figures sont en millimètres. Pour certaines pièces osseuses qui font l'objet d'une description particulière dans le texte, nous noterons entre parenthèse le numéro d'unité de fouille.

1 - D. A. Hooijer 1961.
2 - S. Bökönyi 1978.
3 - P. J. Riis & H. Thrane 1974.
4 - S. Bökönyi 1990.
5 - Cf. B. Hesse & P. Wapnish 2002.
6 - T. Poulain-Josien 1978, J. Desse 1982, E. Vila sous presse.
7 - P. Y. Gagnier 1986.
8 - C. Doumet-Serhal 2003.
9 - J. Boessneck, H. H. Muller & M. Teichert 1964 ; W. Prummel & H. J. Frisch 1986 ; S. Payne 1985 ; D. Helmer 2000 ; P. Halstead & P. Collins 2002.
10 - A. von den Driesch 1976.
11 - E. Vila 1998, p. 24-27.
12 - P. Ducos 1968, p. 10-13.
13 - E. Vila 1998, p. 27-28.
14 - P. Ducos 1968, p. 9-10.
15 - K. H. Habermehl 1985, p. 104-105.
16 - I. A. Silver 1969.

Les inventaires de faune

Les différentes couches d'occupation du Bronze ancien ont livré des quantités très variables de vestiges d'animaux (**Tab. 1** : nombre de restes, **Tab. 3** : poids des restes). Dans les couches du début du Bronze ancien, couches 1 et 2, les restes osseux sont rares. Les couches 3 et 4 (EB II A et EB II B) ont fourni des échantillons réduits d'ossements, tandis que la couche 5 (EB III A) et surtout la couche 6 (EB III B) se sont révélées nettement plus riches en restes osseux.

L'inventaire montre que la faune sauvage est très bien représentée même si les espèces domestiques, le mouton, la chèvre et le bœuf sont majoritaires (**Fig. 1**). Le porc est également élevé. Les restes de chiens et d'équidés sont très rares. Le daim de Mésopotamie est chassé, de même que le sanglier et l'aurochs ainsi que l'hippopotame (**Fig. 2**). Le cerf n'a pas été mis en évidence d'une manière certaine. De grands carnivores comme l'ours et le lion ont aussi été l'objet de chasse. Un fragment de ramure se rapporte peut-être au chevreuil et une cheville osseuse à la gazelle. Tortues marines et poissons ont été péchés et consommés. En revanche, les restes de coquillages et d'oiseaux ne sont pas fréquents.

Les fréquences des espèces n'ont été calculées que pour les couches 5 et 6 (**Tab. 2**), ainsi que pour le total de l'ensemble des couches du Bronze ancien, car le nombre de restes déterminés dans les autres couches était inférieur à 100.

I- LES ESPÈCES PRÉSENTES À SIDON

1- Les animaux domestiques

*Les caprinés : les moutons (*Ovis aries*) et les chèvres (*Capra hircus*).*

Les fréquences des caprinés

Elles correspondent à 25 % du nombre total de restes de mammifères ; elles sont semblables à celles des bovinés et des cervidés. Le rapport chèvres et moutons est de 1 : 1, les fréquences des deux espèces sont égales. Si l'on considère uniquement les fréquences des animaux domestiques (bovins, porcs, caprinés), les caprinés ont une part inférieure à celle des bovinés. Cette situation est rare sur les sites levantins au Bronze ancien (**Tab. 22**). En effet, les caprinés dominent largement le spectre faunique sauf exception comme à En Shadud [17] où leurs fréquences sont inférieures à celles des bovinés (mais le nombre de restes est faible : 150), à Tell Dan [18] et à Tel Gat [19] où leurs fréquences varient de 48 % à 54 % sur l'ensemble des restes de mammifères.

L'étude métrique

Les mensurations qui ont pu être prises sur les ossements des moutons et des chèvres ne sont pas assez nombreuses pour en déduire des informations précises sur la taille et la robustesse de ces animaux. Néanmoins, en ce qui concerne les moutons, les estimations de la hauteur au garrot [20] établies sur deux talus et deux calcaneum donnent des hauteurs de 61 à 75 cm avec une moyenne de 66 cm. D'après la grande longueur latérale (GLl) du talus, les deux mesures de moutons du Bronze ancien sont plus grandes que celles du chalcolithique de Bir es Safadi [21] (**Fig. 3**). Ces données s'intègrent aux dimensions des moutons du Bronze ancien des quelques sites levantins dont les mesures sont accessibles. Les dimensions des humérus distaux et des métacarpes proximaux de Sidon sont petites, inférieures à celles du Bronze ancien d'Arad [22] (**Tab. 4** et **5**). Les ossements de moutons de Sidon auraient donc tendance à se rapporter à des animaux de petite taille. Etant donné le nombre extrêmement réduit de données métriques, il est difficile de savoir s'il s'agit soit essentiellement de femelles – brebis –, soit d'un type de mouton de taille réduite. Un tel type a déjà été mis en évidence pour le Bronze ancien dans la zone septentrionale de la Mésopotamie, c'est-à-dire une aire géographique englobant actuellement le nord de la Syrie, l'Iraq, le sud-est de la Turquie [23]

Les estimations d'âge

L'histogramme des classes d'âge d'abattage élaboré à partir de l'observation et du calcul des stades d'usure des dents indique que les caprinés sont abattus majoritairement entre un et deux ans (**Tab. 6** et **Fig. 4**). Une grande partie est abattue entre 2 mois et un an. Cette courbe des âges est assez caractéristique d'un abattage pour la viande. Les très jeunes individus, de moins de deux mois, n'apparaissent pas, de même que les animaux adultes et matures de deux à quatre ans et surtout de plus de quatre ans. Il n'y a pas de différence nette entre les âges d'abattage des moutons et des chèvres. Les estimations des âges à partir des stades d'épiphysation des os longs (**Tab. 7**) confirment la rareté d'individus pleinement adultes de plus de 3-4 ans. Les caprinés représentés dans l'échantillon de Sidon sont essentiellement des animaux sélectionnés pour la consommation.

17 - L. K. Horwitz 1985.
18 - P. Wapnish & B. Hesse 1991.
19 - P. Ducos 1968, p. 111-114.
20 - Coefficients de Teichert, cf. A. von den Driesch & J. Boessneck 1974.
21 - P. Ducos 1968, p. 172-173, tab. XIII.
22 - H. Lernau 1978, p. 94, tab. 5.6 et p. 95, tab. 5.9a.
23 - E. Vila 2002.

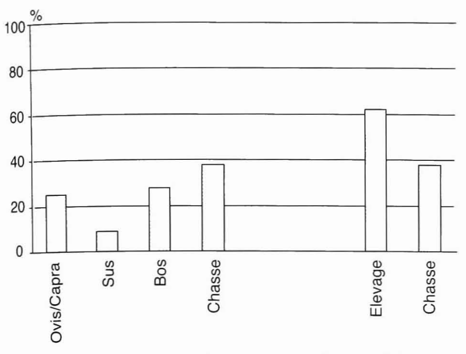


Fig. 1 - Histogramme des fréquences des animaux d'élevage et de la chasse.

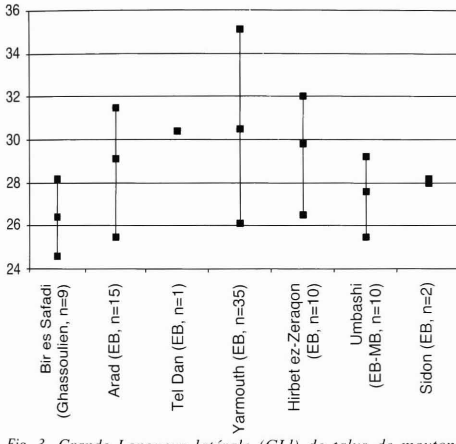


Fig. 3 - Grande Longueur latérale (GLl) de talus de moutons sur quelques sites du Levant (tous datés du Bronze ancien sauf Bir-es Safadi : Ghassoulien). Bir es-Safadi : Ducos 1968 ; Arad : Lernau 1978 ; Tel Dan : Wapnish et al. *1991 , Yarmouth : Davis sous presse ; Hirbet ez-Zeraqon : Dechert, communication personnelle ; Umbashi : Vila 2004.*

Fig. 2 - Histogramme des fréquences des mammifères sauvages.

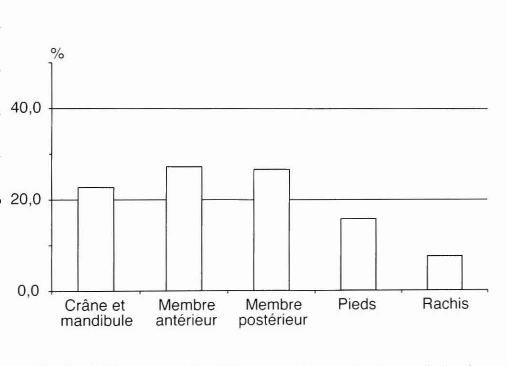


Fig. 5 - Histogramme des fréquences des parties du squelette chez les moutons et les chèvres.

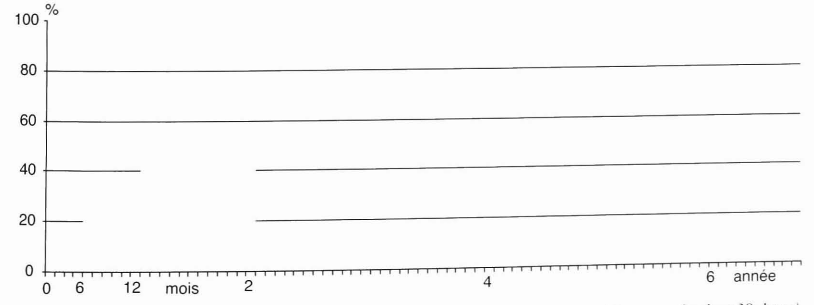


Fig. 4 - Histogramme des fréquences des classes d'âge des caprinés, moutons et chèvres confondus (38 dents).

Les fréquences des parties du squelette

La distribution des parties squelettiques et leurs fréquences (**Tab. 8** et **Fig. 5**) indiquent que les membres antérieurs (scapula, humérus, radius, ulna) et postérieurs (pelvis, fémur, tibia) ont une représentation équivalente. Les ossements des pieds (métapodes et phalanges) sont moins bien représentés, de même que les os des carpiens et le rachis vertébral. La bonne représentation des os des membres, quartiers à grande valeur alimentaire puisqu'ils portent la viande, est certainement liée à la consommation. L'abondance moindre des extrémités des membres (les pieds) correspond sans doute à la technique bouchère. En effet, si la séparation en quartier a été faite, comme cela semble le cas, au niveau des articulations du carpe et du tarse, alors les extrémités des pattes, sans grand intérêt culinaire, ont pu subir un traitement différent de celui des membres et être délaissées. La faible fréquence du rachis vertébral, très sensible aussi d'après la classe des indéterminés « vertèbres petits mammifères » (**Tab. 9**), pourrait également être l'indice d'une découpe bouchère en quartier, avec extraction de la colonne vertébrale et du train de côtes, ceux-ci ayant été consommés ailleurs qu'à l'emplacement des fouilles. Cette présence inégale des parties squelettiques suggère que l'abattage des caprinés et leur découpe ne se faisaient pas dans un cadre privé, comme celui de la maisonnée, où il n'y a pas alors de sélection de parties du squelette. On trouverait alors bien plus d'os des extrémités (carpes, tarses, métacarpes, métatarses et phalanges I, II, et III) et surtout bien plus d'éléments du rachis vertébral (côtes et vertèbres). La répartition observée ici pourrait correspondre au résultat d'une activité de boucherie effectuée dans un cadre plus large que le cadre privé, où interviennent peut-être des « spécialistes », tels des « bouchers » avec redistribution à des consommateurs.

*Les bovinés (*Bos taurus *et* Bos primigenius*)*

Les fréquences des bovinés

Les bovins sont l'espèce domestique la plus courante à Sidon, avant même les caprinés. Le littoral méditerranéen est assez favorable à l'élevage des bovins. Ils sont relativement bien exploités au Bronze ancien dans toute la zone levantine (cf. **Tab. 22**).

Deux tailles très différentes s'observent parmi les vestiges osseux attribuables au genre *Bos*. Des ossements de taille moyenne peuvent être attribués aux bovins domestiques (*Bos taurus*), les autres, de taille nettement supérieure, sortent de la distribution des ossements de ces bovins domestiques.

L'étude métrique

Les données métriques de comparaison sont assez rares pour les bovins, et les comparaisons ont été faites selon les cas avec les données d'Israël et de Syrie sur des sites allant du néolithique au Bronze récent. Les pièces osseuses des grands bovinés de Sidon sont particulièrement robustes, comme l'illustrent les dimensions de l'extrémité proximale d'un radius (**Fig. 6** et **photo 1**), celle distale d'un tibia (**Fig. 7**) ou les phalanges I (**Fig. 8**, **photo 3**) comparées à d'autres données de *Bos* (voir aussi **photo 2**, métacarpe proximal). Ces tailles assez extrêmes posent le problème de l'attribution spécifique : s'agit-il d'animaux sauvages, des aurochs (*Bos primigenius*) ou bien de grands bœufs domestiques castrés avant la maturité sexuelle, pratique qui provoque une croissance plus rapide et plus importante, très rentable pour produire des bœufs de trait ? Mais les ossements ne présentent pas de pathologies visibles dues au stress mécanique du travail (asymétrie, exostoses, surfaces articulaires élargies etc.) [24] ; de plus, l'épaisseur importante des os est un réel argument pour les attribuer à des aurochs. La plupart de ces pièces exceptionnellement grandes se rapportent donc à des aurochs mâles. Sur le site de Yarmouth, à la même période, les talus d'aurochs sont également robustes (**Fig. 9**) [25]

La présence, toujours très discrète, de l'aurochs est attestée sur d'autres sites du Bronze ancien du Levant comme à Yarmouth [26], à Jéricho [27], à Tel Nagila [28] ; les dimensions du talus et du radius proximal sur ce dernier site ne sont pas très élevées (s'agit-il de *Bos taurus* ?). À la même époque, on le trouve également dans la zone septentrionale de la Syrie, en Iraq et en Turquie [29] Au Liban, il a été déterminé à Kamid el-Loz dans les niveaux du Bronze moyen et récent, et de l'Age du Fer [30]. C'est une espèce qui a développé la capacité de vivre dans des milieux divers comme les piémonts et les régions forestières, ainsi que dans les vallées fluviales et les marges steppiques.

Bien que les restes d'aurochs de Sidon et de Yarmouth soient malheureusement très peu nombreux, il faut noter qu'ils sont tous remarquables par leur taille. Cela soulève deux questions : tout d'abord, est-ce que l'aurochs à l'Âge du Bronze pourrait être d'une taille supérieure à son homologue du début de l'Holocène, c'est-à-dire aussi robuste, voire plus, que les aurochs du Natoufien ? Un tel phénomène est assez difficile à concevoir, puisque les études pour l'Holocène sur le Proche-Orient montrent que, dans ce cadre géographique où coexistent des zones climatiques très différentes, la loi de Bergman sur la taille des animaux en fonction du climat et de la température semble bien se vérifier dans le sud du Levant [31]. Malgré

24 - L. Bartosiewicz, W. Van Neer & A. Lentaker 1997.
25 - cf. S. J. M. Davis & H. Hemmer sous presse : Fig. 2.
26 - S. J. M. Davis à paraître.
27 - J. Clutton-Brock 1979.
28 - P. Ducos 1968, p. 116.
29 - H. P. Uerpmann 1987, p. 74-75 ; Vila 1993.
30 - S. Bökönyi 1990, p. 32, Abb. 9 ; p. 34 et 35, Abb. 11 et 12.
31 - S. J. M. Davis 1981, P. Ducos & L. K. Horwitz 1997, L. K. Horwitz *et al.* 1999.

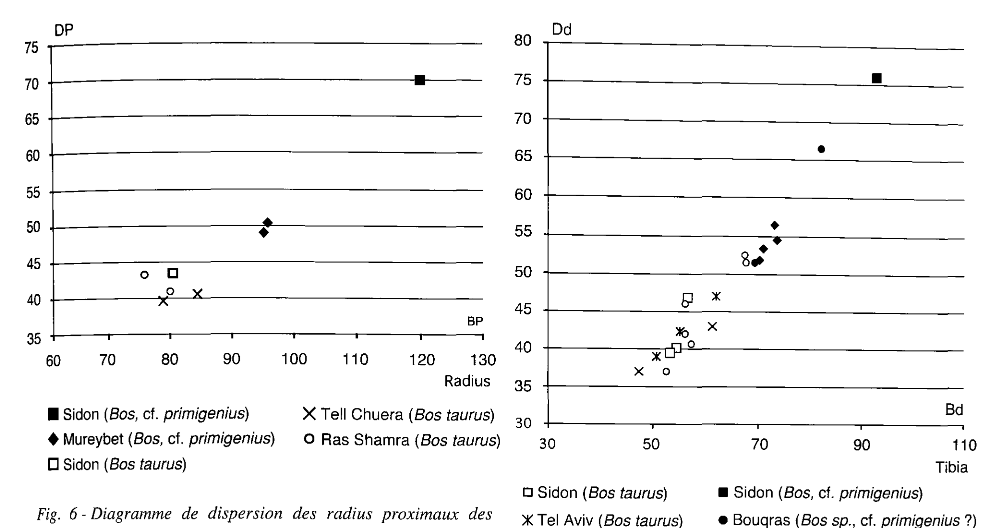


Fig. 6 - Diagramme de dispersion des radius proximaux des bovins. Mureybet (Gourichon & Helmer, en cours d'étude), Tell Chuera (Bronze ancien, Vila 1994), Ras Shamra (Bronze récent, Vila sous presse)

Fig. 7 - Diagramme de dispersion des tibia distaux des bovins. Tell Chuera (Bronze ancien, Vila 1994), Tel Aviv (Bronze ancien, Ducos 1968), Sweyhat (Bronze ancien, Buitenhuis 1985), Bouqras (Néolithique, Buitenhuis 1988), Mureybet (PPN, Ducos 1978 et Gourichon & Helmer sous presse).

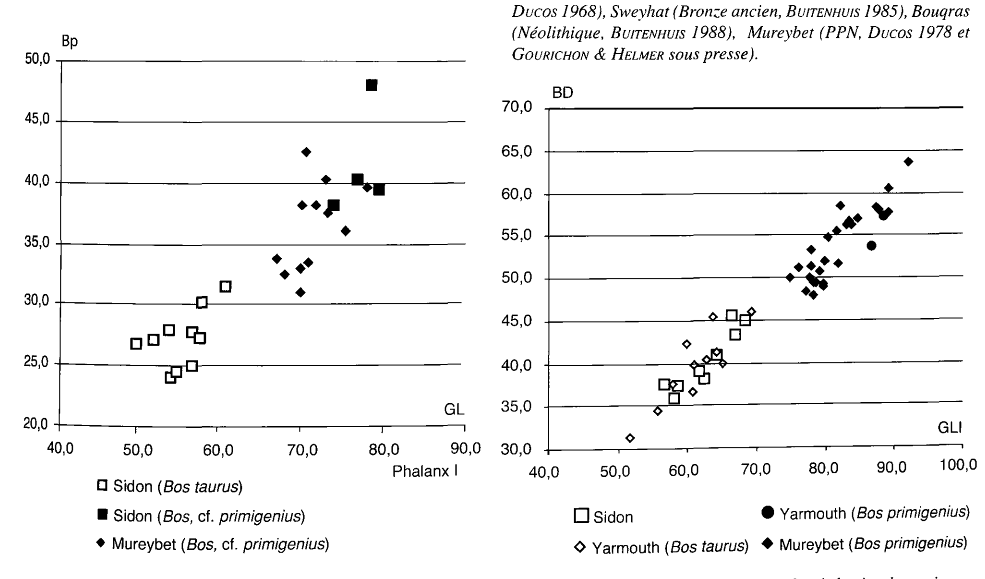


Fig. 8 - Diagramme de dispersion des phalanges I (antérieures et postérieures confondues) de bovins. Mureybet (PPN, Gourichon & Helmer sous presse).

*Fig. 9 - Diagramme de dispersion des talus de bovins domestiques (*Bos taurus*) et d'aurochs (*Bos primigenius*). Yarmouth (Davis sous presse), Mureybet (PPN, Gourichon & Helmer sous presse).*

la pénurie de mesures, on peut se demander si les aurochs vivants sur les piémonts et les plateaux méditerranéens ne seraient pas de taille supérieure aux aurochs des marges steppiques comme, par exemple, ceux de Mureybet ou ceux des sites natoufiens du Levant sud.

Ces aurochs chassés à Sidon, tout comme à Yarmouth, n'auraient-ils pas été strictement sélectionnés pour leur taille et /ou pour leur sexe ? Cela signifierait alors que des individus énormes, peut-être d'une grande rareté, auraient été spécialement recherchés par les chasseurs parmi des aurochs de taille généralement plus réduite.

Pour en revenir aux os de bovins domestiques (*Bos taurus*), ils se rapportent à des animaux de taille moyenne. D'après le diagramme de dispersion des talus, les données de Sidon s'intègrent bien aux données des talus des bovins domestiques du Bronze ancien (**Fig. 10**). À Tell Te'o, une réduction de taille des bovins domestiques du Bronze ancien par rapport à ceux du Néolithique a été observée [32] Toutefois, la quantité de données métriques pour les bovins est actuellement insuffisante pour approfondir le sujet de la taille et voir si des différences régionales et géographiques s'observent entre le nord et le sud, l'est et l'ouest du Proche-Orient au Bronze ancien.

Les estimations d'âge

L'estimation des âges d'abattage des bovins domestiques faite à partir des stades et des indices d'usure des dents indique que les animaux sont abattus jeunes (**Tab. 10** et **Fig.11**). Plus de la moitié des bovins sont sacrifiés avant d'avoir atteint l'âge de 6,5 ans. Un tiers est abattu entre 6,5 ans et 9 ans. Les animaux très âgés manquent. L'histogramme des classes d'âge met en évidence :

- les veaux, consommés avant deux ans (plus exactement entre un et deux ans),
- la consommation de jeunes adultes ayant juste atteint leur poids et leur taille définitive,
- des adultes matures, exploités probablement pour le travail (labour, trait, portage) et réformés vers 9 ans.

Les estimations des âges à partir des observations de l'état des épiphysations osseuses (**Tab. 11**) rendent compte de la rareté des animaux adultes de plus de 48 mois.

Les restes de bovins domestiques, en particulier d'après l'histogramme des classes d'âge, figurent deux groupes d'animaux, donc deux gestions différentes de l'élevage, ceux de consommation, élevés pour la viande, et ceux élevés et utilisés pour le travail.

Les fréquences des parties du squelette

Tout le squelette est représenté chez les bovins. La distribution des parties squelettiques (**Tab. 12** et **Fig. 12**) fait percevoir une représentation médiocre du membre antérieur par rapport au membre postérieur, ce qui est difficile à expliquer. La figuration du rachis est très faible, en regard des fragments assez nombreux non identifiés spécifiquement de vertèbres et de côtes de grands mammifères ; il est donc probable que cette sous-représentation soit la conséquence de la grande fragmentation de ces restes, ce qui les rend d'autant plus difficiles à déterminer, et qu'elle soit due, entre autres, au débitage boucher. La fréquence des os des pieds est relativement élevée. Les os des pieds peuvent être des résidus de la désarticulation de la boucherie, mais ils peuvent aussi entrer dans des préparations culinaires et être consommés. Une phalange II d'aurochs porte des traces de découpe sur la diaphyse. La présence des extrémités de pieds d'aurochs suggère que les membres entiers étaient ramenés sur le site. Ils étaient peut-être détachés du tronc à partir de la ceinture jusqu'au pied, sans qu'il y ait une sélection stricte de quartiers à viande comme, par exemple, les parties supérieures des membres. Le débitage préalable des animaux en quartier sur le lieu de chasse est concevable car la carcasse d'un gibier de cette taille était certainement difficile à transporter entière.

*Les suidés (*Sus scrofa*)*

La détermination des suidés

La présence des suidés est relativement bien marquée à Sidon par rapport à leur présence en général sur les sites du Bronze ancien. L'élevage du porc intervient en troisième position après celui des bovins et celui des caprinés.

La plupart des restes osseux sont de dimensions réduites et se rapportent à des porcs domestiques tandis que quelques pièces de grande taille sortent de l'ensemble. La distinction entre porcs et sangliers est difficile, car il n'existe guère de différences morphologiques spécifiques entre les deux groupes : la détermination se fait donc sur des critères métriques valables seulement lorsqu'il existe une différence de taille dans une région entre porcs et sangliers comme il semble que ce soit le cas au Proche-Orient où, même si les données sont clairsemées, les porcs domestiques paraissent de taille modérée [33]

À Sidon, les quelques dents et ossements plus robustes que les autres, qui sortent de la distribution des porcs, correspondent sans aucun doute à des restes de sangliers. Certains de ces individus pouvaient être de dimensions particulièrement grandes, comme c'est illustré, par exemple, par la scapula (**Fig. 13**).

Le porc

Le porc n'a jamais été exploité à une grande échelle au Proche-Orient et, même, à certaines époques, comme

32 - L. K. Horwitz 2001, p. 184.

33 - E. Vila 1998, p. 124-125.

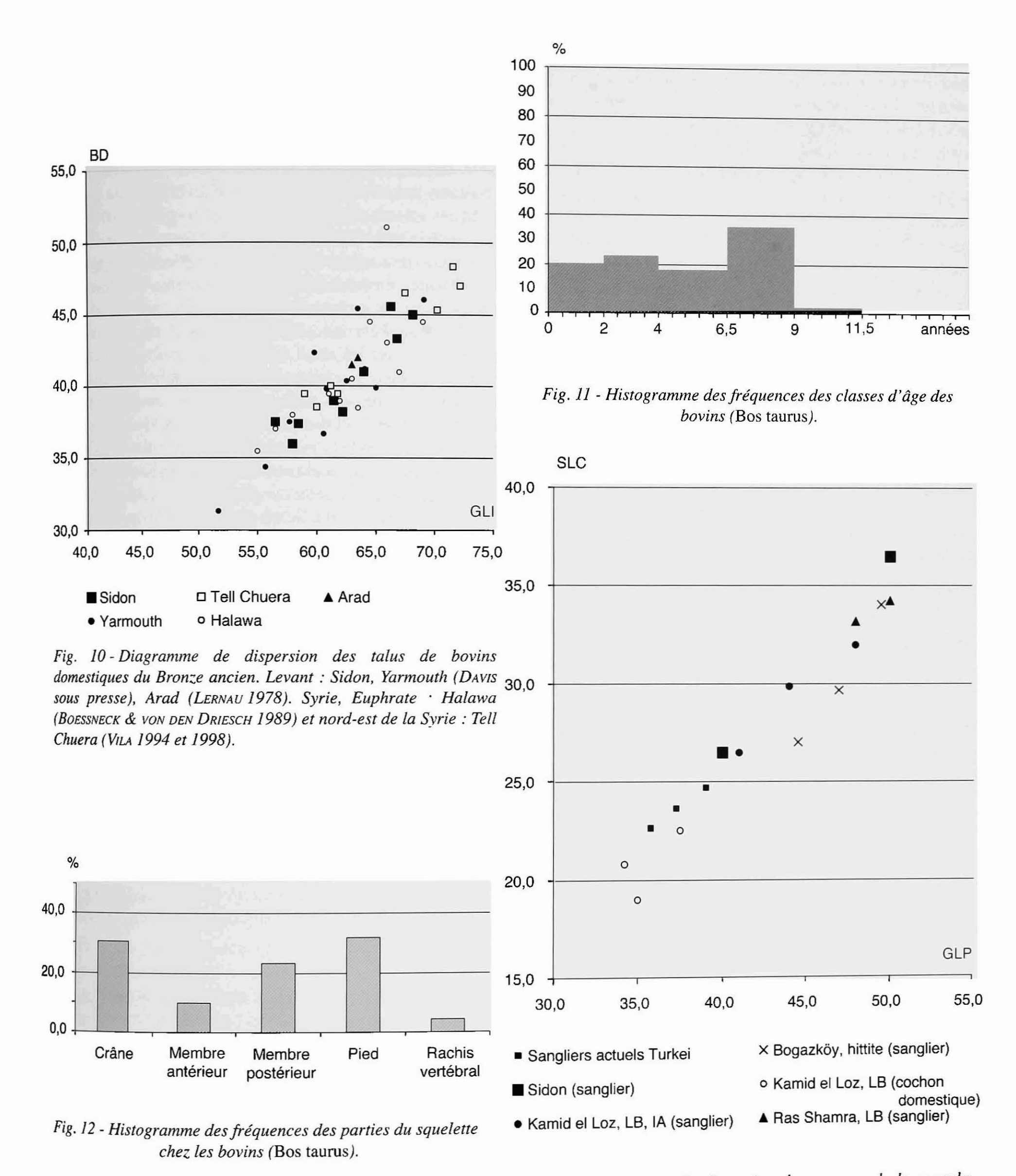


Fig. 10 - Diagramme de dispersion des talus de bovins domestiques du Bronze ancien. Levant : Sidon, Yarmouth (Davis sous presse), Arad (Lernau 1978). Syrie, Euphrate · Halawa (Boessneck & von den Driesch 1989) et nord-est de la Syrie : Tell Chuera (Vila 1994 et 1998).

*Fig. 11 - Histogramme des fréquences des classes d'âge des bovins (*Bos taurus*).*

*Fig. 12 - Histogramme des fréquences des parties du squelette chez les bovins (*Bos taurus*).*

Fig. 13 - Diagramme de dispersion des mesures de la scapula de suidés. Comparaison avec des sangliers modernes de Turquie (Payne & Bull 1988). Kamid el Loz (Bokönyi 1990), Bogazköy (Driesch & Boessneck 1981), Ras Shamra (Vila en cours d'étude).

au Bronze récent, son élevage n'y était qu'épisodiquement pratiqué. C'est pour cette raison que la morphologie et les dimensions des porcs aux époques anciennes ne sont pas connues, faute de données suffisantes. Le problème est le même à Sidon : les restes n'ont pas de qualité informative sur les aspects morphométriques.

Les estimations des âges d'après les dents indiquent que la plus grande partie des porcs était abattue dès qu'ils avaient atteint la taille adulte entre un et deux ans (**Tab. 13**). Les données des stades d'épiphysation des os post-crâniens présentent également une abondance de restes à un stade juvénile ou sub-adulte (**Tab. 14**). Il s'agit d'un abattage pour la viande.

Les différentes parties du squelette sont représentées (**Tab. 15**). L'abattage et la consommation avaient probablement lieu au même endroit.

Le chien (Canis familiaris)

Deux restes attribuables au chien ont été déterminés sur l'ensemble de la faune du Bronze ancien. Il s'agit d'un axis et d'une vertèbre cervicale. Le chien ne paraît pas être un animal familier à Sidon au Bronze ancien. L'absence de restes osseux de chiens dans ces contextes, qui sont des dépotoirs où l'on retrouve des déchets de boucherie et de consommation, s'explique en partie par sa non-consommation. En revanche, il faut noter que peu d'ossements portent des stigmates de morsures, de rongements ou de corrosions dues aux acides gastriques qui représenteraient la preuve indirecte de sa présence. Sept restes seulement présentent ce type de stigmates : des traces de digestion sur une tête de fémur de mouton ou de chèvre, des traces de crocs sur des extrémités distales d'humérus de daim et de porc, de fémur de daim et de bœuf ainsi que sur un calcanéum de bœuf et un de sanglier.

2- Les animaux sauvages

Les équidés (Equus sp.)

Trois restes attribuables à des équidés ont été déterminés :

- une diaphyse de tibia dont les insertions musculaires très prononcées sont typiques des équidés,
- une molaire inférieure 3, de taille réduite, au sillon en « v » qui la rattache aux groupes des ânes ou hémiones,
- une prémolaire inférieure 3 ou 4 de grande taille avec un pli caballin nettement marqué.

La détermination spécifique de ces restes est difficile et leur statut, domestique ou sauvage, reste inconnu.

Le sanglier (Sus scrofa scrofa)

Parmi les restes qui peuvent être attribués au sanglier, un radius entier dont l'épiphyse distale n'est pas soudée à la diaphyse appartient à un individu sub-adulte. Un fragment de mandibule avec une M3 aux cuspides très peu usées se rapporte à un individu de 4-5 ans. Un fragment de maxillaire, en raison du stade d'usure très avancé des molaires 1, 2 et 3, appartient à un individu âgé de plus de 8-10 ans. Ces observations sur les âges permettent d'estimer un nombre minimal d'individus de trois sangliers. Deux fragments de canines inférieures très épais se rapportent à des mâles probablement âgés. On notera des traces de découpe sur un os du tarse (calcanéum).

Les sangliers ne sont chassés que d'une manière anecdotique sur les sites du Bronze, leurs ossements se rencontrent donc peu fréquemment et les données métriques manquent. Cependant, quelques mensurations obtenues sur des restes de sites du Bronze et du Fer de Syrie, de Turquie et du Liban prouvent l'existence d'autres individus de très grande taille comme cela a été mis en évidence à Kamid el-Loz [34] et à Ras Shamra [35]. Les sangliers aux époques anciennes étaient même de plus grande taille que certaines populations actuelles de Turquie

La gazelle (Gazella sp.)

Le seul vestige attribué à la gazelle est une cheville osseuse presque entière (165, **photo 4**). De grande taille, elle se rapporte à un mâle, car les femelles des différentes gazelles qui vivaient au Proche-Orient, *Gazella gazella* et *G. dorcas* dans le Levant sud, *Gazella subgutturosa* dans le nord de la Mésopotamie, ont des chevilles de taille inférieure à celles des mâles. Les cornes de gazelles sont différentes de celles des moutons et des chèvres : elles ont une forme en lyre et la matière cornée après préparation est de couleur noir brillante. Ainsi, la présence de cette pièce indique un intérêt particulier : elle a été ramenée, soit pour la matière cornée qui couvrait l'os, soit pour sa forme. Peut-être lui attribuait-on des propriétés magico-médicinales ou marquait-elle le souvenir d'un animal rare sur la côte et peut-être mal connu.[37]

Les cervidés : le daim (Dama mesopotamica), *le cerf* (Cervus elaphus) *le chevreuil* (Capreolus capreolus).

La détermination des cervidés

La plupart des restes de cervidés à Sidon correspondent au daim de Mésopotamie. Un fragment de petite taille de bois de cervidé avec de grosses perlures pourrait peut-être appartenir au chevreuil. Cependant, aucun autre os de cette espèce n'a été identifié dans les restes fauniques. Les autres fragments de bois à merrain assez large et aplati sur

34 - S. Bökönyi 1990, p. 61.
35 - E. Vila & A. S. Dalix 2004, 226-227.
36 - Corpus de mesures de sangliers actuels dans S. Payne & G. Bull 1988.
37 - E. Vila 2002a.

les pièces qui se prêtaient à cette observation semblent typiques du daim (**Fig. 14**). Toutefois, l'identification entre le daim de Mésopotamie et le cerf sur les ossements post-crâniens est difficile, car les caractères morphologiques discriminateurs sont assez discrets. La métrique permet sur quelques os d'opérer une distinction entre les deux espèces. La difficulté réside cependant dans le fait que le daim de Mésopotamie est un animal de taille supérieure à son homologue européen et, en cela, il se rapproche des dimensions des cerfs, ce qui produit un recouvrement des distributions des mesures des os des *D. mesopotamica* mâles et des *C. elaphus* femelles. Néanmoins, ce problème est en partie limité, car le cerf du Proche et Moyen-Orient (*C. elaphus maral*) serait une sous-espèce de taille supérieure au cerf européen [38] La région levantine, tout comme les vallées fluviales mésopotamiennes, était par excellence une zone de distribution de l'espèce *D. mesopotamica*. Cependant, l'existence simultanée des cerfs est bien attestée ostéologiquement sur les sites levantins. Au Liban, on trouve conjointement la présence des cerfs et des daims dès le paléolithique, entre autres, sur les sites suivants : Ksar'Akil [39], Tell Labweh [40], Kamid el-Loz [41]. Les deux espèces se côtoient encore à des périodes plus récentes comme, par exemple, dans les niveaux de l'Âge du Fer et dans les niveaux hellénistiques de Tel Nov dans le Golan [42] Le cerf est en général moins bien représenté que le daim dans les faunes archéologiques. Sa disparition de cette zone n'est pas bien datée, elle remonte probablement à l'époque médiévale [43] et précède largement celle du daim qui a été encore mentionné au milieu du XX^{e} siècle de notre ère en Syrie [44]. À cette difficulté s'ajoute le problème de la discrimination morphométrique, due à la fluctuation de la taille des daims, tout comme de celle des cerfs, au cours du temps.

L'étude métrique

Si l'on considère les dimensions d'ossements de *D. mesopotamica* récents [45], ils ont une tendance à être moins robustes et moins grands que ceux des époques anciennes. Les dimensions des scapula de Sidon comparées aux données récentes rendent compte de ce phénomène (**Fig. 15**). Bien qu'un mélange de cerfs et de daims soit concevable, il s'agit sans doute plutôt de daims mâles et femelles qui seraient un peu plus robustes que les spécimens récents. L'os du talus semble être plus discriminant pour la distinction entre cerfs et daims

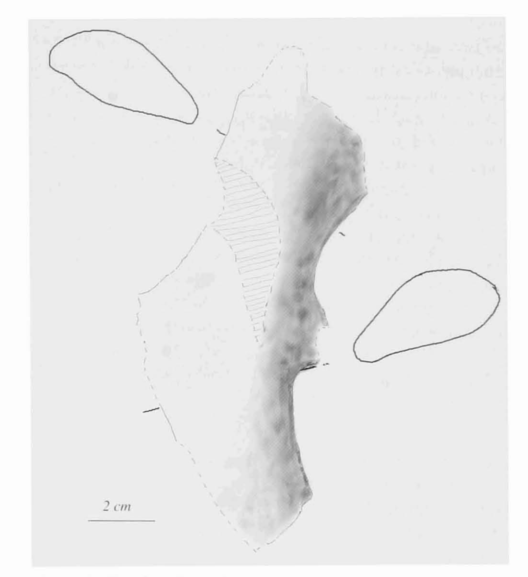


Fig. 14 - Dessin d'un fragment de merrain de Daim de Mésopotamie (D. mesopotamica).

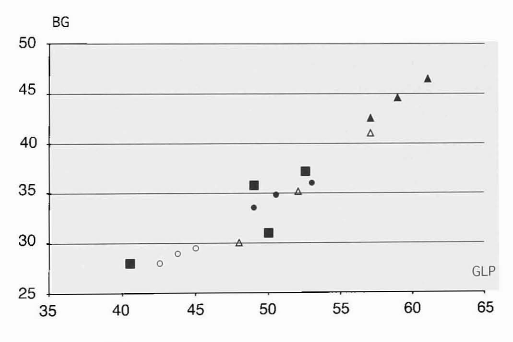


Fig. 15 - Diagramme de dispersion des scapula de cervidés.

38 - H. P. Uerpmann 1987, p. 64.
39 - D. A. Hooijer 1961.
40 - S. Bökonyi 1978.
41 - S. Bökönyi 1990, p. 41-42.
42 - L. K. Horwitz 2000.
43 - H. P. Uerpmann 1987, p. 64.
44 - D. L. Harrison 1968, p. 368-369.
45 - Données d'Israël et d'Iran : T. Pfeiffer 1999, Figs 112, 116, 118.

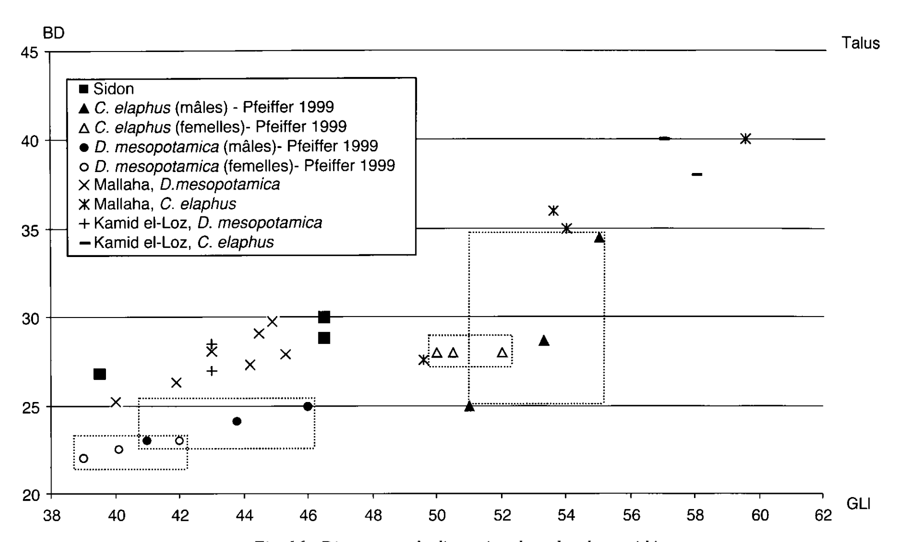


Fig. 16 - Diagramme de dispersion des talus de cervidés. Mallaha, Israël, natoufien (Bouchud 1987), Kamid el-Loz (Bökönyi 1990).

(**Fig. 16**). Les trois talus mesurés de Sidon sont attribuables aux daims. Leurs longueurs (GLl) sont similaires à celles des daims actuels et nettement plus courtes que celles des cerfs. On retrouve là encore une robustesse supérieure à celle des animaux récents. Mais la mesure de largeur (BD), prise d'une manière légèrement différente entre les exemplaires récents et les exemplaires archéologiques, introduit peut-être une variation dans la robustesse que l'on observe. La discrimination à partir des phalanges proximales est plus délicate, en raison des différences morphométriques entre les phalanges antérieures et les postérieures (les phalanges de Sidon n'ont pas été déterminées de ce point de vue). De plus, cet os semble avoir une assez grande variabilité dont les raisons peuvent être multiples (géographie physique et environnement, entre autres). Les phalanges de Sidon ne semblent pas porter des caractères morphologiques de cerfs [46]. En revanche, si l'on considère le rapport GL/SD [47] où les valeurs moyennes pour le cerf sont de 3,7 à 3,4, et celles pour le daim de 5 à 3,8, les phalanges de Sidon montrent toute une robustesse importante avec des valeurs qui vont de 3,0 à 3,9. Dans ce contexte proche-oriental, étant donné que tous les os du squelette montrent une forte robustesse, il semblerait que les valeurs discriminantes du rapport GL/SD de T. Pfeiffer ne soient pas valables pour les cervidés levantins. Ainsi, la plupart des phalanges proximales paraissent se rattacher aux daims. Seules trois phalanges particulièrement robustes pourraient provenir, sans certitude, de cerfs (**Fig. 17**). En ce qui concerne les phalanges II, trois sur cinq s'intègrent dans la partie supérieure de la dispersion des phalanges des daims mâles et des cerfs femelles récents (**Fig. 18**). À la suite des observations faites ci-dessus sur les aspects de robustesse, il convient à mon avis de les considérer comme des phalanges de daims. Les deux plus grandes pourraient éventuellement être attribuées à des cerfs, mais on ne peut pas non plus écarter définitivement la possibilité qu'elles appartiennent à de grands daims mâles.

Les autres ossements des membres sont de taille tout à fait compatible avec le daim de Mésopotamie et en dehors des phalanges I et II, d'identification douteuse, aucun ne supporte nettement l'hypothèse de la présence du cerf. En définitive, il semblerait que la plupart des restes de cervidés correspondent à ceux de daims (*D. mesopotamica*), de grande taille et de forte robustesse, probablement une majorité de mâles, attestés également par le grand nombre de fragments de bois.

Les estimations de l'âge

Les estimations des âges à partir des stades d'épiphysation des os indiquent que ce sont des adultes qui ont été chassés ; deux ossements seulement ont un stade sub-adulte (**Tab. 16**).

Les fréquences des parties du squelette

Toutes les parties du squelette sont représentées (**Tab. 17** et **Fig. 19**). Il faut noter cependant que le crâne

46 - Cf. K. Bosold 1968.

47 - Mis en évidence par T. Pfeiffer 1999, p. 140-141.

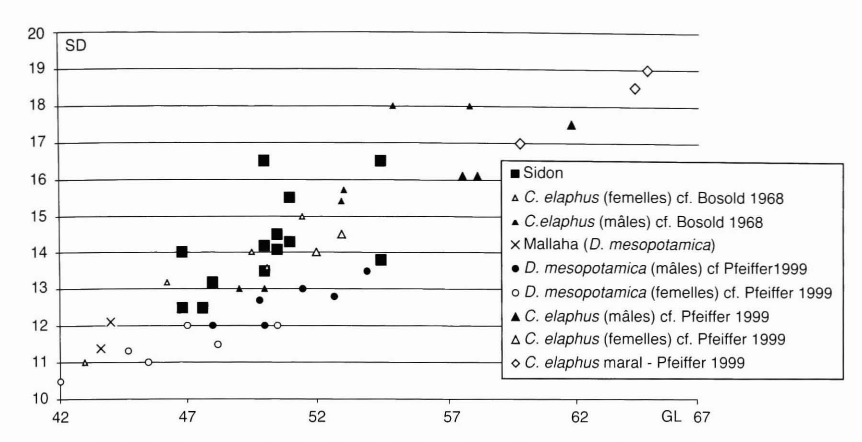


Fig. 17 - Diagramme de dispersion des phalanges I, antérieures et postérieures, de cervidés.

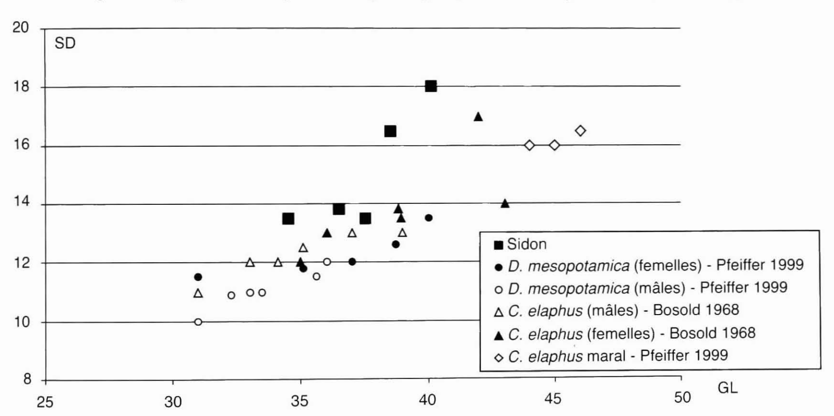


Fig. 18 - Diagramme de dispersion des phalanges II, antérieures et postérieures, de cervidés.

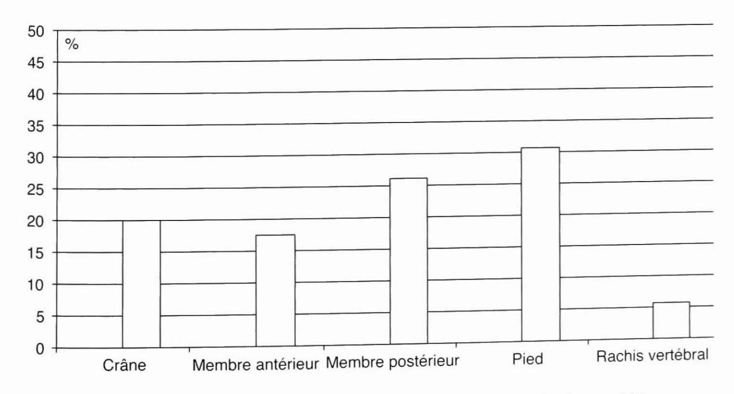


Fig. 19 - Histogramme des fréquences des parties du squelette chez les cervidés.

est représenté essentiellement par des fragments de bois. Les autres pièces crâniennes comme les os du crâne, les maxillaires, les mandibules et les dents, sont nettement sous-représentées par rapport à ce que l'on observe, par exemple, chez les espèces domestiques. Les os du crâne, plus fragiles, ne se conservent pas très bien, il est donc difficile de dresser des conclusions en fonction de leur absence. En revanche, l'absence de dents, qui se conservent relativement bien et qui attestent de la présence des maxillaires (partie crânienne) et des mandibules, est plus surprenante. On peut donc se demander à quoi est due cette sous-représentation, et si les crânes n'auraient pas subi un traitement particulier lors du débitage des animaux (trophée ?).

*L'hippopotame (*Hippopotamus *cf.* amphibius*)*

Les restes d'hippopotame

C'est dans la couche 6 que le plus grand nombre de restes osseux d'hippopotame ont été retrouvés. Treize restes ont été déterminés morphologiquement et spécifiquement, alors que, dans la couche 3, seulement un fragment de pelvis (109) pourrait se rapporter à l'hippopotame. En outre, dans les couches 3, 4, 5 et 6, un certain nombre de fragments très épais et très compacts peuvent être attribués avec certitude à l'hippopotame, car c'est le seul mammifère de très grande taille reconnu jusqu'à présent à Sidon.

Les restes osseux déterminés morphologiquement de la couche 6 proviennent des différentes parties du squelette.

Le crâne est absent, en dehors d'un fragment de mandibule qui appartient vraisemblablement à l'hippopotame (719).

Les os des membres sont figurés par :

- un métatarse IV droit entier (181, **photo 5**),
- deux extrémités distales de métapodes (705 , **photo 6**) dont un juvénile (175),
- un métapode entier juvénile (181),
- une phalange I (175),
- une extrémité d'ulna juvénile (709, **photo 7**),
- une extrémité proximale de tibia juvénile (076, **photo 8**) et une distale de tibia adulte (700, **photo 9**).

Le rachis est présent avec les vestiges de :

- un atlas entier (709, **photo 10**),
- un fragment d'atlas (082, **photo 11**),
- un atlas juvénile (705),
- un fragment d'axis (082, **photo 12**),
- une vertèbre thoracique (700),
- de très nombreux fragments de vertèbres et de côtes (nombre = 34) dont les calibres correspondent à celles de l'hippopotame et classées dans les indéterminés.

Cinq restes exposent un stade de croissance juvénile et quatre un stade adulte. La présence des trois atlas révèle que trois individus au minimum sont représentés dans cet ensemble de la couche 6, deux adultes, un assez robuste (un mâle ?), un plus gracile (une femelle ?) et un juvénile.

L'étude métrique

Le tibia, les métapodes et la phalange de Sidon – même si la position anatomique (doigt II, III, IV ou V) de ces derniers n'est pas connue – sont de taille un peu inférieure, comparés aux ossements du site de Maadi dans le delta du Nil [48] Ces derniers, d'après les auteurs, proviendraient pour la plupart d'hippopotames mâles (**Tab. 18**). Comparé aux dimensions des hippopotames actuels, *Hippopotamus amphibius* (**Tab. 16**) [49], le tibia distal de Sidon se place dans la moyenne des valeurs (**Tab. 18**). La longueur totale du métatarse IV est supérieure à celle des métatarses actuels ; en revanche, la robustesse de sa diaphyse correspond à celle des plus robustes actuels [50] : ce métatarse est donc plus long mais aussi plus gracile que ceux des hippopotames actuels.

Les stigmates de boucherie

Les stigmates de l'activité de boucherie sont très nombreux sur ces restes d'hippopotame, comme en témoignent les traces de découpe au couteau et de débitage à la hache qui apparaissent sur les os. Un des atlas porte des traces de découpe sur la face ventrale et la face dorsale, un autre est tranché au niveau de l'axis. Le bec de l'axis a été séparé du reste de la vertèbre par un coup de hache. De même, la diaphyse du tibia proximal juvénile est tranchée à la hache. La diaphyse de la phalange I porte des traces de découpe. De plus, des traces de percussion s'observent sur la plupart des fragments de vertèbres et de côtes qui se rapportent vraisemblablement à l'hippopotame.

La découpe en quartier, le débitage en tronçon, l'enlèvement de la peau et la consommation de l'hippopotame à Sidon ne font pas de doute. En outre, il est probable que les os aient été systématiquement cassés pour récupérer la moelle. Les restes correspondent à des déchets de boucherie et des rejets de consommation. L'absence du crâne suggère qu'il était prélevé et traité ailleurs, peut-être dans un secteur d'artisanat. On sait que l'ivoire des dents est une matière première très prisée, en particulier au Bronze récent.

La présence de l'hippopotame dans le Levant

L'hippopotame fait partie des très grands mammifères, tributaires de la présence d'eau. C'est un herbivore, nageur

48 - J. Boessneck, A. von den Driesch & R. Ziegler 1989, p.108, Tab. 19.
49 - M. Faure 1986, p. 124.
50 - Cf. M. Faure 1986, p. 124, tab. 24.

et plongeur, qui vit dans les cours d'eau tout en utilisant le long des berges un terrain herbeux qui lui sert de pâture. Il peut nager en mer jusqu'à une trentaine de kilomètres [51]. Il occupe un territoire d'assez faible étendue et vit parfois en concentrations importantes. Il mange de grandes quantités d'herbes (200 kg par 24 h), son impact sur les modifications du paysage est donc considérable [52]. De très grande taille, il ne craint guère les prédateurs : il atteint 4 m 20-4 m 90 de longueur avec la queue, et pèse entre 2 et 3 tonnes [53].

Les restes d'hippopotames sont documentés en quantités inégales au Proche-Orient. C'est une des rares espèces de mammifères de cette région qui permet de remonter jusqu'au Pleistocène moyen [54], sans que l'on sache exactement si sa distribution dans la partie sud du Levant a été discontinue ou non, en fonction des variations climatiques, encore que cette espèce ait une grande adaptabilité due à sa régularisation thermique [55]. L'hippopotame avait déjà été répertorié pour le Pleistocène à Sidon [56]. Des trouvailles sporadiques indiquent qu'il a vécu le long de la côte levantine au moins jusqu'au Ier millénaire av. J.-C. – Tell Qasileh daté de l'Âge du Fer [57]– et son extinction dans le Levant semblerait coïncider avec l'occupation romaine vers le IIIe-IIe siècle av. J.-C. [58] En tout cas, à l'époque médiévale, d'après les sources arabes, il n'existait qu'en Égypte, et, de plus, il ne semble y avoir aucun souvenir à ces époques du fait qu'il ait vécu sur la côte levantine [59].

Côté égyptien, si l'hippopotame a disparu de la Haute Égypte vers la même période, il a survécu en Moyenne Égypte et dans les marais et les lagunes du Delta plus longtemps, comme en témoignent les auteurs classiques, et les grands voyageurs mentionnent son existence dans le Delta jusqu'au XIXe siècle de notre ère [60].

Par ailleurs, sur le littoral levantin au nord de Sidon, l'existence de l'hippopotame dans l'environnement immédiat d'un site est attestée par des restes du squelette post-crânien : trois métapodes ont été retrouvés dans les niveaux du Bronze récent à Ras Shamra en Syrie [61]. Les autres sites de périodes historiques où des os et des dents d'hippopotame ont été identifiés se trouvent dans le Levant Sud : Tel Miqne Ekron [62], Tel Nagila, Tel Dor, Nahal Hataninim, Yarkon River, Tel Aphek, Tel Qasile, Tel Gerisa, Tel Erani, Qatif Y2 [63]. Les sites sont tous implantés à l'intérieur de la limite de la plaine côtière. Un seul site de l'intérieur des terres a livré, au Bronze ancien, des restes du squelette post-crânien (un calcanéum ainsi que des fragments d'os longs non-identifiables anatomiquement : il s'agit de Jéricho dans la vallée du Jourdain [64]. Cela signifie peut-être qu'une population d'hippopotames a survécu dans la vallée après le Pléistocène où elle est attestée à Oubeidiyeh [65]. Des traces de découpe, à Tel Qasile sur un métacarpe [66], à Jéricho sur le calcanéum [67], indiquent une pratique bouchère sur l'hippopotame soit pour le cuir, soit pour la viande.

Une utilisation particulière des ossements d'hippopotame apparaît sur le site égyptien de Maadi ; des ossements d'hippopotames, entre autres un ulna et un radius, étaient posés verticalement sur le sol, parfois enfoncés en partie dedans et calés par des pierres et des traces d'usure et de travail étaient observables sur la surface de certains de ces os. Ils ont été utilisés comme enclumes ou comme pieds ou bases [68].

Les dents, travaillées ou non pour l'ivoire, retrouvées sur des sites de l'intérieur, comme les ivoires de Kamid el-Loz au Liban, les incisives d'Arad [69] ainsi que les dents de Tell es Hesi, Aï, Tel Dan, Gezer [70] attestent éventuellement du commerce et de l'importation à partir de la côte de matière première ou d'objets finis, et non pas forcément de l'existence de l'hippopotame et de sa chasse à proximité d'un site.

La quantité de viande que représentent la chasse et l'abattage de trois individus dans la couche 6 est donc exceptionnelle. Etant donné la présence de tous les éléments du squelette et le poids de ces animaux, ils étaient sans doute chassés près du site. La plaine littorale assez large entre Sidon et Tyr avec les estuaires marécageux des rivières pérennes, provenant du Mont Liban, comme le Nahr Saïnig au sud de Sidon et le Nahr el Awali au nord, offrait les biotopes favorables à la vie des hippopotames. La chasse se faisait vraisemblablement au harpon comme l'atteste l'iconographie égyptienne [71]. Ils étaient probablement débités à l'emplacement de l'abattage pour pouvoir assurer le transport des parts de viande.

*Le lion (*Panthera leo*)*

Les restes de lion

Deux restes, récoltés dans la couche 6, ont été attribués au lion : une phalange I (709, **photo 13**) et une extrémité

51 - M. Faure 1985, p. 16.
52 - M. Faure 1985, p. 16.
53 - V. Hanak & V. Mazak 1986, p. 267.
54 - M. Faure 1985, p. 17.
55 - H. Bytinski-Salz 1965 ; M. Faure 1985 p. 18 ; L. K. Horwitz & E. Tchernov 1990, p.70.
56 - M. Faure 1986, p. 129.
57 - G. Haas 1953, S. J. M. Davis 1985.
58 - H. Bytinski-Salz 1965, p.47.
59 - Ibn Manglî, p. 223.
60 - J.-C. Goyon 2000, p. 152.
61 - M. Faure 1986, p. 129.
62 - E. F. Maher 2002, p. 12.
63 - L. K. Horwitz et E. Tchernov 1990 : Fig. 4.
64 - F. Alhaique sous presse.
65 - M. Faure 1986, p. 108.
66 - S. J. M. Davis 1985.
67 - F. Alhaique sous presse.
68 - I. Rizkana & J. Seeher 1989, p. 68-70.
69 - S. J. M. Davis 1976, p. 163.
70 - A. Caubet et F. Poplin 1987.
71 - J. Vandier 1964.

proximale de métatarse III gauche (053). Il s'agit de deux individus différents, la phalange I appartenant à un individu d'assez grande taille, un mâle peut-être, tandis que le métatarse se rapporterait plutôt à un individu plus gracile. Aucune trace de découpe n'a été relevée sur la surface de ces ossements.

La trouvaille d'extrémités de pattes de lion ne signifie pas forcément que l'animal a été chassé sur le site même : ces os ont pu parvenir avec la fourrure dans un lieu, par voie commerciale, d'échange ou même de cadeau. En effet, les os des extrémités des pattes se rencontrent assez régulièrement sur les sites du Proche-Orient [72].

Le lion au Proche-Orient

Le lion, espèce ubiquiste, occupant des steppes comme des régions boisées, a disparu au début du XX^e siècle de cette région [73]. La chasse au lion, en dehors des cas où elle était menée pour protéger les troupeaux, était une activité royale dans le monde mésopotamien où le lion était considéré comme le roi des animaux et, à ce titre, associé aux rois et à certaines divinités. C'est un des motifs de prédilection de l'iconographie orientale. Les traces de consommation sont rares, mais sont attestées dans quelques cas, comme à Gindéris dans la région de l'Afrin, à l'Âge du Fer en Syrie, où une extrémité distale d'humérus montre des traces de découpe [74], à Tell Mishrifé/Qatna où un humérus entier porte également des traces de découpe [75] La consommation de grands félidés comme le lion et la panthère a été aussi mise en évidence sur le site hittite de Bogazköy en Anatolie [76] Dans le contexte particulier de Sidon, il est probable que les lions ont été chassés par les occupants mêmes du site, et dans son environnement proche. C'était, sans doute, pour les chasseurs confirmés de Sidon au Bronze ancien, un trophée de chasse valorisé, non pas pour sa valeur carnée en tant que gibier mais pour sa valeur symbolique, celle de sa chasse en soi ainsi que celle de certains éléments de son corps, comme la fourrure, mais aussi le crâne et les mâchoires. Il ne faut pas oublier également les éventuelles croyances aux vertus spécifiques, médicinales ou magiques, attribuées à des parties ou des produits du lion (sang, urine, cervelle, graisse, peau, testicules), dont on n'a pas de preuves directes en archéologie, mais qui sont mentionnées dans les textes anciens mésopotamiens [77] ou médiévaux [78]. Au Bronze récent, à Ras Shamra, comme cela semble être aussi le cas à Ras Ibn Hani, les mandibules ont été sélectionnées et prélevées volontairement pour des raisons non élucidées [79] À la même époque, à Jaffa, le crâne et les mandibules d'une lionne ont été aussi retrouvés sur le sol d'un temple [80], ce qui suggère un culte ou un rituel en relation avec cet animal.

*L'ours brun (*Ursus arctos*)*

Les restes d'ours

Plusieurs ossements dans les couches 5 et 6 (EB III A et B) ont pu être attribués à l'ours brun.

Dans la couche 5 :
- une extrémité proximale d'un humérus gauche (073, **photo 14**),
- une extrémité proximale d'une ulna gauche (074, **photo 15**),
- une épiphyse distale de fémur gauche juvénile de grand carnivore se rapporte probablement aussi à l'ours (074).

Dans la couche 6 :
- une extrémité distale d'une scapula droite (718),
- une extrémité distale d'un radius droit (711, **photo 16**),
- un fragment proximal d'un métatarse V droit (700),
- un fragment proximal d'un métatarse V gauche (076),
- un fragment proximal d'un métacarpe II gauche (038).

Le développement d'exostoses sur le radius distal indique qu'il appartenait à un animal âgé.

L'étude métrique

Les os sont de particulièrement grandes dimensions. Ils sont plus grands que ceux d'un ours brun des Alpes (collection du Muséum de la ville de Lyon, n° 50 000 527 : avant-dernier ours tué au XIX^e siècle en France), et les métatarses sont aussi grands que des exemplaires d'ours des cavernes (collection du Museum de Lyon, communication orale de Michel Philippe). La variabilité de la taille est connue pour être très importante chez les ours bruns. Les données métriques de comparaison manquent au Proche-Orient pour cette espèce, tant pour les époques anciennes que pour la période moderne. Sur différents sites de Turquie, de fortes différences de taille ont été mises en évidence entre les restes osseux [81] Le radius de Sidon est de taille supérieure à un radius distal de Gindéris (Âge du Fer, nord-ouest de la Syrie) [82] ainsi qu'à un radius distal de Korucutepe provenant des niveaux hittites [83] (**Tab. 19**). Aux époques anciennes, les ours bruns des montagnes syro-libanaises pouvaient atteindre de grandes dimensions : comme les restes de Sidon, un reste d'ours de Byblos provenait également d'un grand individu [84].

72 - P. Wapnish 1997, p. 361-362 ; E. Vila 1998, p. 82.
73 - D. L. Harrison 1972, appendix I.
74 - E. Vila en cours d'étude.
75 - E. Vila en cours d'étude.
76 - A. von den Driesch & J. Boessneck 1981, p. 56.
77 - Au I^er millénaire av. J.-C. : B. Mofidi Nasrabadi 1999, p. 46.
78 - Ibn Manglî, trad. F. Viré 1984, p. 79-80.
79 - E. Vila sous presse.
80 - J. Kaplan & H. Ritter-Kaplan 1993, p. 540 ; P. Wapnish 1997, p. 361-362.
81 - B. de Cupere 2001, p. 49-51.
82 - E. Vila en cours d'étude.
83 - J. Boessneck & A. von den Driesch 1975, p. 142.
84 - E. Vila 1998, p. 85.

Les stigmates de boucherie

La diaphyse de l'humérus porte des stigmates de percussion. Des traces de découpe sur l'ulna s'observent sur le bord latéral de l'articulation ainsi que sur le côté latéral, correspondant à l'emplacement du muscle triceps brachial, de l'oléocrâne. Ces traces témoignent de la désarticulation du membre antérieur au niveau du coude.

L'ours brun au Proche-Orient

L'ours brun, attesté dans les faunes archéologiques, se rencontrait dans toute la zone littorale : au nord, on le trouve à Ras Shamra [85], à Byblos [86], à Kamid el Loz [87] et au sud à Tell es Sa'idiyeh [88], à Jéricho [89], à Tel Dan [90], à Yarmouth [91]. Cet animal appréciant les couverts forestiers reste relativement ubiquiste grâce à son alimentation omnivore. Son habitat sous la contrainte humaine s'est réduit aux zones montagneuses et difficiles d'accès. Il est rare ou absent dans les régions steppiques. Les ours ont été chassés pour leur viande et leur peau et probablement aussi pour protéger les troupeaux sur des sites du VII^{e} au I^{er} millénaire av. J.-C. En Anatolie, il était consommé à Arslantepe à la fin du Chalcolithique et au Bronze ancien [92]. L'ours brun a survécu dans la région israélienne jusqu'au XIX^{e} siècle de notre ère et dans les montagnes syro-libanaises (*Ursus arctos syriacus*) jusqu'au début du XX^{e} siècle [93]. Les observations des zoologues le décrivent comme un ours de couleur claire et de taille médiocre.

En tout cas, à Sidon, un ours brun, adulte et de grande taille, a été chassé et consommé, comme l'attestent les traces de décarnisation sur les os du membre antérieur, et un second ours juvénile est peut-être aussi présent dans la faune.

La faune marine

Les restes de poissons et de tortues sont assez fréquents dans la faune. Les identifications spécifiques des poissons sont en cours d'analyse par Wim van Neer (Musée Royal d'Afrique Centrale, Tervuren), celles des tortues marines par France de Lapparent (Museum d'Histoire naturelle, Paris).

Les poissons

La seule information disponible actuellement sur les poissons concerne la grande abondance de vertèbres de requins du genre *Cacharhinus sp.* (plus de 64 % des restes de poissons) dont la détermination spécifique reste à faire. Plusieurs espèces de requins apparaissent en Méditerranée orientale, vivant plus ou moins en eaux littorales, de dimensions qui varient entre 1 m 50 pour le requin pointes noires *(C. melanopterus)* et 4 m pour le requin sombre (*C. obscurus*).

Les tortues marines

En ce qui concerne les tortues marines, elles sont représentées par de très nombreux fragments de carapaces et de plastron ainsi que par des ossements des membres : scapula (084), humérus (082, **photo 17**), fémurs (700, 069, photo 18) et un certain nombre de restes osseux indéterminés. Il s'agit de *Cheloniidae indét.*, et plus précisément de *Chelonia sp.* (détermination préliminaire de F de Lapparent). Les restes proviennent d'au moins deux grands adultes (deux fémurs). Un humérus fracturé permet une évaluation de la longueur de l'os : 121 mm. Cela correspondrait à une carapace d'environ 60 cm et une tortue d'un poids d'environ 100 kg (longueur de l'humérus x 5, communication personnelle de F. de Lapparent). Les tortues n'ont pas forcément été pêchées en mer. Elles ont pu être piégées alors qu'elles venaient pondre sur les plages. Deux espèces de tortues marines, *Caretta caretta* et *Chelonia mydas*, pondent encore actuellement au printemps sur la côte levantine [94] C'est alors plutôt une cueillette qu'une pêche, car les tortues qui arrivent toutes à quelques jours d'intervalle sont sans défense, on peut alors choisir les plus grosses, celles qui ont le plus de chair et le plus gros foie (Communication personnelle de F. de Lapparent). Étant donné les traces de découpe visibles sur les restes osseux, les tortues ont été sacrifiées pour être consommées.

II - LES TRACES SUR LES OSSEMENTS

Il y a plusieurs types de stigmates sur la surface des ossements. Les stigmates de pathologie sont provoqués par les maladies, les accidents, la vieillesse. Ils sont très rares à Sidon. On ne les relève qu'à trois reprises : sur le radius d'ours, sur un humérus distal de daim, et sur une extrémité distale d'ulna de boviné. Certaines traces sont dues aux animaux et plus particulièrement aux chiens, comme on l'a vu ci-dessus, telles les empreintes de crocs et de rongements, ou les attaques des acides digestifs. Cependant la plupart sont laissées par l'activité humaine : découpe, brûlure, sciage, polissage, percement. Les unes sont relatives à l'activité de boucherie et de consommation, comme les stries de couteau et les impacts des haches au moment du dépeçage, de la séparation en quartier et de l'enlèvement de la viande. D'autres stigmates, comme les traces de brûlures localisées, peuvent être le résultat d'une cuisson par rôtissage. Enfin, certains, principalement des

85 - T. Poulain-Josien 1978, E. Vila à paraître.
86 - E. Vila 1998, p. 85.
87 - S. Bökönyi 1990, p. 83.
88 - J. Lepiksaar 1990.
89 - J. Clutton-Brock 1979.
90 - P. Wapnish & B. Hesse 1991.
91 - S. J. M. Davis & H. Hemmer, sous presse.
92 - S. Bokonyi 1983, p. 590.
93 - D. L. Harrison 1968, p. 222-225.
94 - M. Kasparek 1995.

traces de sciage, de polissage et de percements, mais aussi éventuellement des marques de couteaux ou de débitage à la hache, sont liés à l'activité artisanale, c'est-à-dire à la fabrication d'objets et d'outils en os et à leur utilisation. Le sciage ne s'observe qu'en liaison avec le façonnage et l'artisanat, cette technique n'est pas utilisée dans la boucherie.

La boucherie

Les traces de boucherie sont de loin les plus nombreuses. On les retrouve sur les ossements de toutes les espèces. D'après le nombre de traces d'impact sur les os des grands mammifères, un instrument percutant comme une hache ou un hachoir est utilisé fréquemment dans un débitage en quartier des bovins et des cervidés (**Fig. 20** et **21**). On observe aussi ce type de stigmate sur les os d'hippopotame et ceux d'ours, comme cela a été décrit ci-dessus. En revanche, même si les observations sur les traces ne sont pas très nombreuses pour les animaux de plus petite taille, comme le mouton, la chèvre et le porc, la désarticulation semble se faire essentiellement au couteau (**Fig. 22** et **23**). Les ossements de tortue marine portent également des stries de découpe au couteau. Le hachoir serait alors plutôt réservé à la boucherie des grands animaux.

L'industrie osseuse

Le débitage des bois de daim et leur ablation du crâne se fait à coup de hache. Les traces de percussions mais aussi de découpe sont assez nombreuses sur les fragments de bois. Les bois étaient visiblement utilisés dans l'artisanat pour faire des objets ou des outils ; un fragment de merrain portant deux rainures et quatre perforations (102) a pu faire office de manche. Un autre fragment, d'après les traces à une extrémité, pourrait avoir été utilisé comme molette (705). Plusieurs vestiges de bois sciés sont clairement des chutes ou des déchets de fabrication (2 en 043). Plusieurs bases de ramures avec les vestiges de la rosette plus ou moins conservée (175, 704, plus 2 en 700, **Fig. 24**) sont des bois de massacre, c'est-à-dire qu'ils ont été débités de la tête de l'animal mort et non pas ramassés après leur chute annuelle. Un seul fragment de bois avec la rosette, qui porte de plus des traces de débitage sur le merrain, est un bois de chute, ce qui signifie qu'il a été récupéré au sol comme matière première (700).

D'autres ossements de daim ont été aussi utilisés dans l'industrie osseuse : ce sont tous des métapodes. Les surfaces polies d'un métapode distal et des extrémités proximales de métatarses (175, 705) indiquent une usure artificielle due à une utilisation comme outil. La surface également polie de diaphyses fracturées d'un métacarpe

D Disarticulating
Sk Skinning
F Filling
Percussion
Burnt area
Bos primigenius
Cutmarks

Bos taurus

Fig. 20 - Emplacement des stigmates de boucherie sur les ossements de bovins (Fiche descriptive, Helmer *1987).*

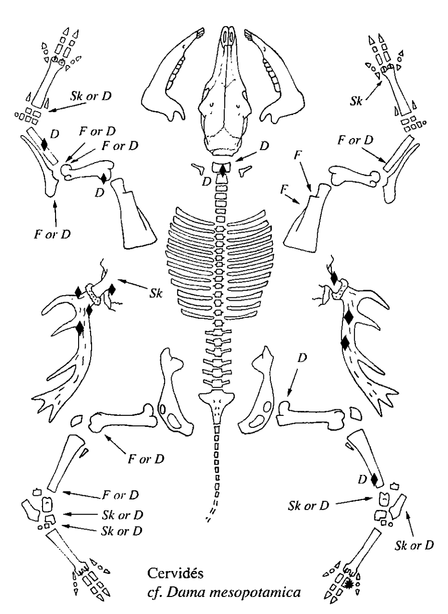


Fig. 21 - Emplacement des stigmates de boucherie sur les ossements de cervidés (Fiche descriptive, Helmer *1987).*

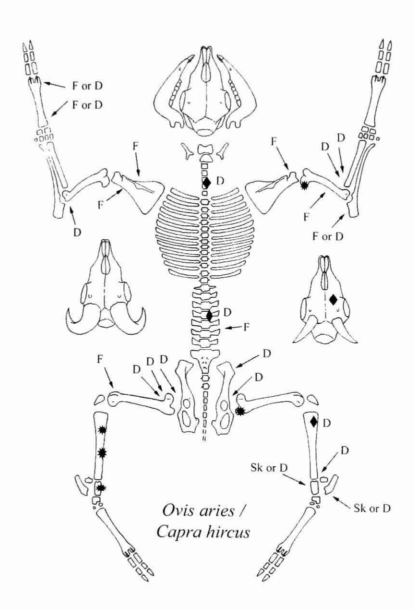


Fig. 22 - Emplacement des stigmates de boucherie sur les ossements de caprinés (Fiche descriptive, Helmer 1987).

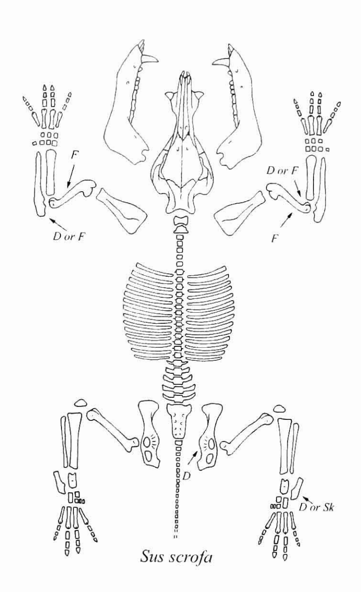


Fig. 23 - Emplacement des stigmates de boucherie sur les ossements de suidés (Fiche descriptive, Helmer 1987).

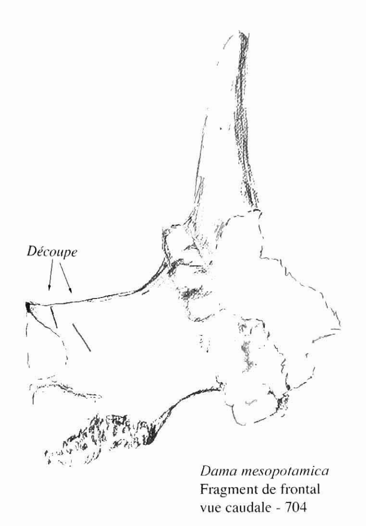


Fig. 24 - Dessin d'un bois de massacre de daim.

et de métatarses distaux témoigne peut-être de leur emploi comme racloir (181) et comme poinçons (181, 075).

Ce même os chez les bovins a été aussi utilisé dans l'industrie osseuse, comme l'attestent des fragments de métapodes sciés (153, 2 en 149, **Fig. 25** et **26**) qui correspondent sans doute à des chutes de fabrication. La même observation a été faite sur un tibia juvénile de bovin (180, **Fig. 27**). La diaphyse des métapodes et du tibia est particulièrement droite par rapport aux autres os longs, ce qui en fait une pièce de choix pour le façonnage de plaquettes d'os et de poinçons.

Des traces de poli, de lustre ou d'usure sur des talus de mouton et de chèvre (2 dans 153 : **Fig. 28a** et **b**), des côtes d'un petit ruminant (205) et d'un grand mammifère (082), la diaphyse d'un ulna de porc (716) et celle d'un tibia de capriné (180, **Fig. 29**) pourraient résulter d'utilisations comme outils non élaborés (racloirs, lissoirs, etc.).

Une apophyse vertébrale de poisson (101) a été utilisée comme poinçon.

Tous ces restes témoignent d'une part d'une utilisation ponctuelle d'ossements en fonction probablement de leur forme anatomique, d'autre part d'un réel artisanat sur bois de cervidés

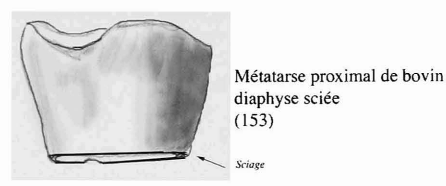


Fig. 25 - Dessin de métatarse proximal de bovin

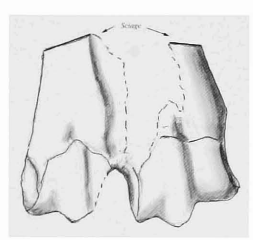


Fig. 26 - Dessin de métacarpe distal de bovin

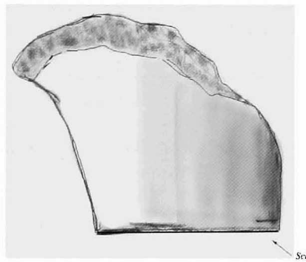


Fig. 27 - Dessin de tibia proximal de bovin.

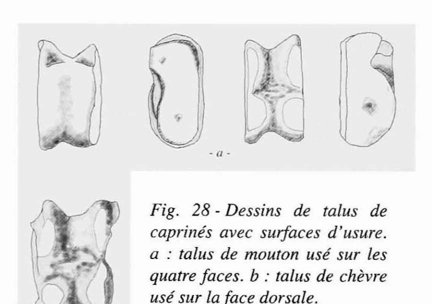


Fig. 28 - Dessins de talus de caprinés avec surfaces d'usure. a : talus de mouton usé sur les quatre faces. b : talus de chèvre usé sur la face dorsale.

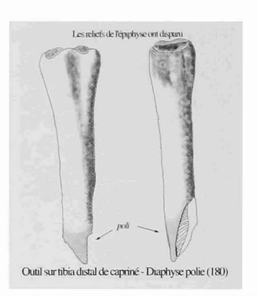


Fig. 29 - Dessin d'un tibia distal de capriné, poli sur toute la diaphyse.

IV - L'EXPLOITATION DES ANIMAUX À SIDON

L'élevage

Ainsi, d'après les fréquences des espèces déterminées à partir des restes osseux, les animaux domestiques dominent le spectre de la faune présente à Sidon. Pourtant, l'élevage n'est pas la ressource principale pour les apports carnés. En considérant les poids de restes, qui sont en corrélation relative avec les poids de viande, l'élevage fournit moins de la moitié de l'alimentation carnée dont la plus grande partie est obtenue par la chasse (**Tab. 20** et **Tab. 21**).

L'élevage peut être qualifié de diversifié puisque les différentes espèces domestiques – ovins, caprins, porcins et bovins – y ont une part presque équivalente. L'absence d'un élevage intensif, la forte proportion des chèvres (même quantité que les moutons), la présence des porcs, la pratique de la chasse montrent que le mode de subsistance des occupants de Sidon n'est pas celui d'éleveurs spécialisés, comme on le rencontre dans le sud du Levant ou dans le nord de la Mésopotamie.

Apparemment, l'élevage des animaux domestiques est pratiqué à petite échelle. Il s'agit peut-être, en ce qui concerne les bovins et les porcs, d'un élevage familial. Les caprinés, en revanche, pourraient faire partie d'un autre circuit, celui de la production et du commerce. L'exploitation des ressources sauvages de l'environnement proche, montagne, forêt, plaine littorale, estuaires des fleuves, mer, est une caractéristique essentielle.

La chasse

Les données de Sidon sont très surprenantes, car la chasse n'est pas une activité habituellement pratiquée sur les sites levantins au Bronze ancien. Dans les villes et les villages dont on connaît l'exploitation des animaux pour cette période, principalement sur les sites du Levant sud, on pratique une économie alimentaire carnée basée essentiellement sur l'exploitation des espèces domestiques. Le premier cas de figure le plus répandu sur ces sites est

celui d'un élevage mixte où les bovins, après les caprinés, ont une part importante dans l'économie (Taur Ikhbeineh, Yaqush, Tell Dan, Megiddo, Dalit, Aï, cf. **Tab. 22**). Le second cas de figure est un élevage diversifié où l'élevage des porcs se rajoute à celui des bovins et des caprinés (Qiryat'Ata, Esh Shuna, En Shadud, Abu en-Ni'aj, Tell Mishrifé). Le troisième cas est un élevage spécialisé où les caprinés sont principalement exploités ; la part des autres animaux domestiques est alors très faible (inférieure à 10 % comme à Tell Halif et à Arad). La part des animaux sauvages est en général inexistante (autour de 1-2 %), excepté sur deux sites où toutefois elle ne dépasse pas 10-12 % (Tel Dan et Tell Gat). Ainsi, sur les sites levantins du Bronze ancien, dans l'état actuel des connaissances, l'activité de chasse est anecdotique, elle ne joue aucun rôle dans l'alimentation. Les villes et les villages vivent essentiellement de l'élevage, un élevage dont les choix varient selon des paramètres qui sont probablement culturels et environnementaux, puisque la part des bœufs et des porcs peut être très différente suivant les sites.

L'exploitation des animaux à Sidon au Bronze ancien est donc un phénomène propre à ce site : non seulement la chasse est un apport important à l'économie carnée, mais encore elle présente des caractéristiques particulières. Elle concerne principalement les cervidés. Cependant, d'autres animaux sont aussi chassés, l'aurochs, le sanglier, l'ours, le lion, l'hippopotame. Ces dernières espèces ont un point commun puisqu'elles sont toutes dangereuses et de grande taille. De plus, il existe visiblement une sélection des individus. Si l'on considère les dimensions des restes de ces animaux, ce sont généralement des mâles qui sont préférentiellement chassés, tant pour les grands carnivores que pour les ongulés, daims, sangliers, aurochs.

Ces particularités de la pratique de la chasse donnent des pistes de réflexion. La sélection du gibier n'est pas caractéristique de chasseurs qui recherchent uniquement des apports carnés : dans ce cas, ils ne s'attaqueraient pas aux animaux les plus dangereux, comme les mâles d'espèces redoutables, mais chasseraient plutôt les femelles des sangliers et des daims.

Le mobile de cette activité cynégétique n'est peut-être pas seulement d'ordre économique, mais pourrait être également idéologique. Mon hypothèse est que les chasseurs se sont intéressés non pas seulement aux quantités de viande mais aux qualités du gibier lui-même. Ces pratiques pourraient correspondre à une chasse de prestige : certaines personnes chassent des animaux dangereux pour se valoriser et asseoir une position sociale, ou même à des concours de chasse au cours desquels il s'agit de ramener le gibier le plus prestigieux : l'animal à ce moment-là fait office de trophée. De telles pratiques de chasse reflètent certainement l'existence d'un groupe social particulier, soit de privilégiés, notables ou autres, soit un groupe de personnes spécialisées dans la chasse.

CONCLUSION

Il faut aussi considérer que les occupants de Sidon au Bronze ancien n'étaient pas seulement des chasseurs, ils pratiquaient aussi la pêche. Cela nécessite en tous les cas des qualités, des connaissances et des « savoir-faire » assez différents. On peut penser que ce ne sont pas les mêmes individus qui chassent, qui pêchent et qui pratiquent l'élevage ; ce ne sont peut-être pas non plus les mêmes personnes qui chassent le daim et l'ours. On perçoit ainsi l'existence possible d'une diversité des activités humaines de subsistance.

Cette pratique de la chasse et de la pêche à Sidon n'est pas un moment ponctuel de la vie des occupants ; elle est, bien entendu, très nette dans les niveaux 5 et 6 puisque la quantité de restes osseux est importante, mais on la perçoit bien déjà dans les niveaux 3 et 4 malgré le petit nombre de restes. Je considère donc que l'on peut qualifier ce type d'exploitation des animaux de tradition « culturelle » propre à Sidon, car elle perdure du Bronze ancien II A au Bronze ancien III B. En revanche, l'analyse en cours des niveaux du Bronze moyen ne fait pas état d'une continuation de ce mode d'exploitation : à ce moment-là, l'élevage est la base de l'économie carnée. Dans l'état actuel de la recherche, ce phénomène est unique pour le Bronze ancien du Levant. Actuellement, l'avancée des fouilles ne permet pas encore de déterminer l'importance de Sidon au Bronze ancien : était-ce une ville ou bien un village, et quel type d'habitants y vivaient-t-ils ? Seule l'étude de sites du littoral nord du Levant permettra de dire si cette situation est vraiment unique, ou bien s'il existe des traditions locales d'élevage et de chasse plus typiques du Levant nord et qui sont absentes dans le Levant sud.

Je tiens à remercier ici Madame Claude Doumet-Serhal, qui m'a confié l'étude de la faune et a toujours veillé à ce que je puisse travailler dans les meilleures conditions, ainsi que Monsieur Jean-Louis Huot, alors directeur de l'Ifapo, grâce auquel j'ai pu profiter de commodités de travail précieuses dans les locaux de l'Ifapo à Beyrouth. Ensuite, je souhaite adresser tous mes remerciements à Martine Faure, Claude Guérin et Michel Philippe avec qui j'ai eu le plaisir de pouvoir regarder les collections de la ville de Lyon et plus particulièrement de discuter des grands carnivores. Je voudrais aussi remercier Wim van Neer, pour avoir bien voulu regarder préliminairement quelques vertèbres de poissons en attendant de pouvoir faire une analyse complète, et France de Lapparent pour ses premières réflexions sur les ossements de tortues marines. Je suis aussi particulièrement reconnaissante à Daniel Helmer et Simon Davis de nos échanges et nos discussions qui m'ont toujours beaucoup apporté.



Photo 1 - Radius proximal de Bos primigenius.



Photo 2 - Métacarpe proximal de Bos primigenius.



Photo 3 - Phalange I : à gauche, Bos primigenius, *à droite* Bos taurus.

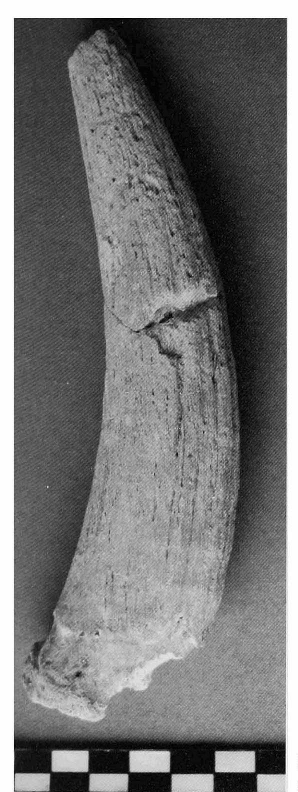


Photo 4 - Cheville osseuse de gazelle.



Photo 6 - Métapode distal d'hippopotame



Photo 5 - Métatarse IV d'hippopotame.



Photo 7 - Ulna distal juvénile d'hippopotame.

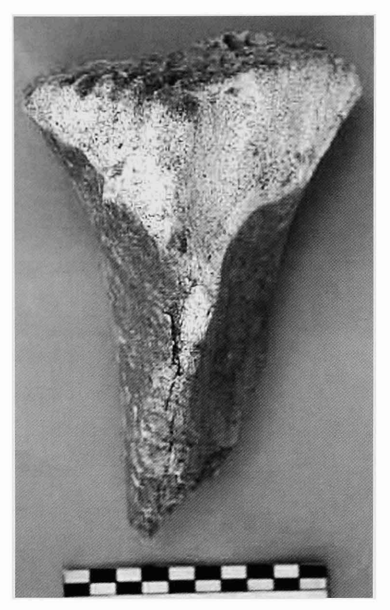


Photo 8 - Tibia proximal juvénile d'hippopotame



Photo 9 - Tibia distal d'hippopotame



Photo 10 - Atlas d'hippopotame



Photo 11 - Fragment d'atlas d'hippopotame avec des traces de découpe, face ventrale.



*Photo 14 - Humérus proximal d'*Ursus arctos.

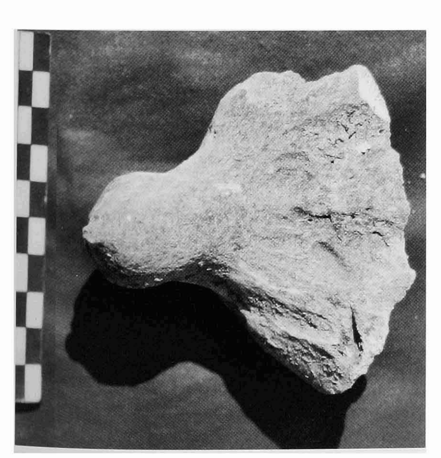


Photo 12 - Fragment d'axis d'hippopotame.

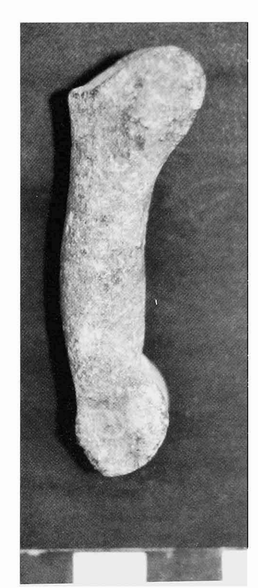


Photo 13 - Phalange I de Panthera leo.

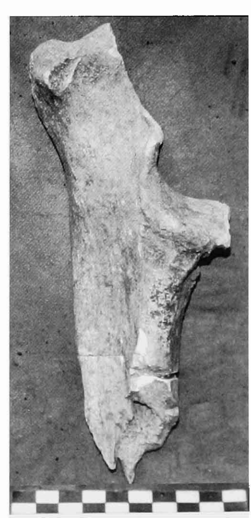


*Photo 15 - Ulna proximal d'*Ursus arctos.

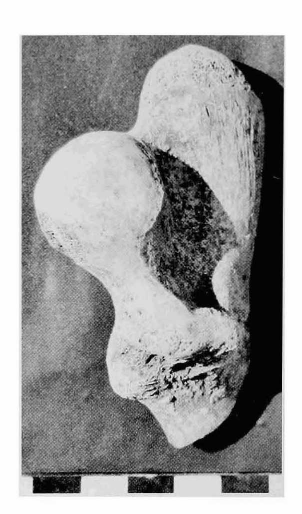


Photo 17 - Humérus de tortue marine.

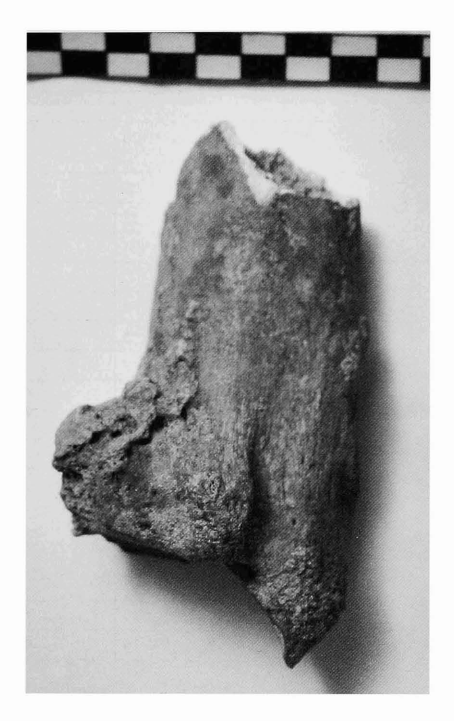


*Photo 16 - Radius droit d'*Ursus arctos.



Photo 18 - Fémur de tortue marine.

NOMBRE DE RESTES		Couche 1	Couche 2	Couche 3	Couche 4	Couche 5	Couche 6	Total** Bronze ancien
Ovis aries	Mouton	[1]*		[1]	[4]	[2]	[26]	[34]
Capra hircus	Chèvre	[1]		[1]		[7]	[22]	[31]
Ovis aries/Capra hircus	Mouton/ chèvre	4	1	11	15	26	130	187
Gazella sp.	Gazelle						2	2
Petits ruminants					1		1	2
Sus	Porc et sanglier	1		7	5	31	31	76
	Sanglier seul			[4]	[1]	[2]	[5]	[12]
Bos taurus	Bœuf	3		6	8	23	159	205
Equus sp.	Equidés						2	3
Cervidés *cf. D. mesopotamica*	Daim			10	19	27	120	177
Capreolus capreolus ?	Chevreuil ?						1	1
Bos primigenius	Aurochs				1	5	22	28
Grands mammifères				5	4	3	24	37
Canis familiaris	Chien				1	1		2
Hippopotamus amphibius	Hippopotame			1	?	?	14	15
Ursus arctos	Ours					3	5	8
Panthera leo	Lion						2	2
Petits carnivores	Chien/ renard					1		1
Total mammifères		8	1	40	54	120	513	746
Coquillages		1			1		4	6
Poissons		1		3	9	14	128	157
	dont *Cacharhinus sp.*			[1]	[6]	[9]	[86]	
Tortue marine				6	8	11	149	173
Indéterminés		32	2	45	45	149	979	1242

* Les chiffres entre crochets correspondent à des détails spécifiques des attributions, non comptabilisés dans les totaux.
** Quelques restes, datés du Bronze ancien, qui n'ont pas été attribués à une des six couches, apparaissent aussi dans cette colonne.

Tableau 1 Inventaire du nombre de restes (Bronze ancien).

% du nombre de restes		Couche 5	Couche 6	Total Bronze ancien
Ovis aries/Capra hircus	Mouton/chèvre	21,7	25,3	25,2
Gazella sp.	Gazelle		0,4	0,3
Petits ruminants			0,2	0,3
Sus	Porc	25,8	6	8,6
	Sanglier	1,7	1	1,6
Bos taurus	Bœuf	19,2	30,9	27,5
Equus sp.	Equidés		0,4	0,4
Cervidés cf. *D. mesopotamica*	Daim	22,5	23,3	23,7
Capreolus capreolus	Chevreuil		0,2	0,1
Bos primigenius	Aurochs	4,2	4,3	3,8
Grands mammifères		2,5	4,7	5,0
Canis familiaris	Chien	0,9	0,2	0,3
Hippopotamus amphibius	Hippopotame		2,7	2,0
Ursus arctos	Ours	2,5	1	1,1
Panthera leo	Lion		0,4	0,3
Petits carnivores		0,9		0,1
Total mammifères		100	100	100

Tableau 2 - Fréquences des espèces (Bronze ancien).

POIDS DES RESTES		Couche 1	Couche 2	Couche 3	Couche 4	Couche 5	Couche 6	Total Bronze ancien
Ovis aries	Mouton	18		6	40	17	212	293
Capra hircus	Chèvre	25		5		103	148	281
Ovis aries/Capra hircus	Mouton/chèvre	24	1	56	79	139	478	777
Gazella sp.	Gazelle						116	116
Petits ruminants					10		2	12
Sus	Porc et sanglier	20		246	131	837	714	1948
Bos taurus	Bœuf	215		409	539	824	5027	7014
Equus sp.	Equidés						65	65
Cervidés cf. *D. mesopotamica*	Daim			378	773	990	3684	5825
Capreolus capreolus							8	8
Bos primigenius	Aurochs					671	2532	3203
Grands mammifères					138	87	566	791
Canis familiaris	Chien				5			5
Hippopotamus amphibius	Hippopotame			600	100	420	3475	4595
Ursus arctos	Ours					559	160	719
Panthera leo	Lion							
Petits carnivores						8		
		302	1	1700	1715	4655	17187	25652
Coquillages								
Poissons		1		5	25	70	362	463
Tortues				70	270	100	1750	2190
Indéterminés		118	2	382	368	1554	7795	10219

Tableau 3 - Poids des restes (Bronze ancien).

Humérus		min	max	mean	n
BT	Arad	26	33	29,7	19
	Sidon	27	29	28,2	4

Tableau 4 - Mesures du diamètre transverse distal de l'humérus des moutons (Arad : LERNEAU 1978).

Metacarpus		min	max	mean	n
Bp	Arad	23,0	27,5	25,0	12
	Sidon	23,3	24,5	23,9	5

Tableau 5 - Mesures du diamètre transverse proximal du métacarpe des moutons (Arad : LERNAU 1978).

Estimations	Ovis	Capra	Ovis/Capra	Total	%	correction	% corrigés	%
0-2 mois								
2-6 mois	1		1	2	5,3	3	15,8	15,0
6-12 mois	2	1	2	5	13,2	2	26,3	25,1
1-2 ans	6	8	4	18	47,4	1	47,4	45,1
2-4 ans		3	5	8	21,1	0,5	10,5	10,0
4-6 ans	1	1		2	5,3	0,5	2,6	2,5
> 6 ans	2	1		3	7,9	0,25	2,0	1,9
Total	12	14	12	38	100		105	100

Tableau 6 - Estimation des âges d'abattage des moutons et des chèvres d'après les stades d'usure des dents (VILA 1998).

	moins de					Total	Plus de				Total
	naissance	12 mois	24 mois	36 mois	48 mois		12 mois	24 mois	36 mois	48 mois	
Ovis			1		2	3	21	1	6	4	32
Capra		1	1	1	1	4	10	2	6	2	20
Total Ovis/Capra	4	20	3	4	25	56	61	3	16	10	90

Tableau 7 - Estimation des âges des moutons et des chèvres en fonction des stades d'épiphysation des os du squelette post-crânien.

Parties squelettiques	*Ovis*	*Capra*	*Ovis/ Capra*	Total
mandibule	3	4	7	14
dents isolées	9	13	16	38
crâne	5	7	3	15
Crâne	17	24	26	67
scapula	6	2	14	22
humérus	3	3	18	24
radius	4	5	20	29
ulna	1		4	5
carpe				
Membre antérieur	14	10	56	80
pelvis			16	16
fémur	2	1	20	23
tibia	2	7	20	29
tarse	5	1	4	10
Membre postérieur	9	9	60	78
métapodes			3	3
métacarpe	7	4	4	15
métatarse	1	2	14	17
phalange	6	4	1	11
Pied	14	10	22	46
Rachis vertébral	3	1	18	22

Tableau 8 - Distribution des parties du squelette chez les moutons et les chèvres.

Indéterminés	Nombre de Restes	Poids des Restes
fragments petits mammifères	1246	1314
fragments grands mammifères	494	4872
côtes petits mammifères	149	513
côtes grands mammifères	162	2072
vertèbres petits mammifères	32	150
vertèbres grands mammifères	105	1258

Tableau 9 - Distribution des restes indéterminés en grandes catégories.

	NR	%	correction	% corrigés	%
0-2 ans	6	17,1	x 1	17,1	20,3
2-4 ans	7	20,0	x 1	20,0	23,7
4-6,5 ans	7	20,0	x 0,75	15,0	17,8
6,5-9 ans	14	40,0	x 0,75	30,0	35,6
9-11,5 ans	1	2,9	x 0,75	2,2	2,6
> 11,5 ans					
	35	100		84,3	100

Tableau 10 - Estimation des âges d'abattage des bovins (Bos taurus) d'après les stades d'usure des dents (DUCOS 1968, VILA 1998).

	moins de				Total	Plus de			Total
	naissance	6-18 mois	18-36 mois	36-48 mois		6-18 mois	18-36 mois	36-48 mois	
Bos		5	3	11	19	58	9	6	73

*Tableau 11 - Estimation des âges des bovins (*Bos taurus*) en fonction des stades d'épiphysation des os du squelette post-crânien.*

Parties squelettiques	*Bos taurus*	*Bos primigenius*
mandibule	13	
dents isolées	46	
crâne	11	
Crâne	70	
scapula	7	
humérus	4	1
radius	9	2
ulna	3	1
carpe	1	1
Membre antérieur	23	5
pelvis	7	4
fémur	5	
tibia	13	2
tarse	28	2
Membre postérieur	73	8
métapodes	11	
métacarpe	15	1
métatarse	12	
phalange	35	11
Pied	73	12
Rachis vertébral	10	2

Tableau 12 - Distribution des parties du squelette chez les bovins.

Parties squelettiques	*Sus*	*Sus scrofa*
mandibule	14	2
dents isolées	2	1
crâne	8	2
Crâne	24	5
scapula	1	2
humérus	7	
radius	4	1
ulna	5	
carpe		
Membre antérieur	17	3
pelvis	5	1
fémur	4	
tibia	3	
tarse	3	3
Membre postérieur	15	4
métapodes	2	
métacarpe	3	
métatarse	3	
phalange	3	
Pied	11	
Rachis vertébral	3	

Tableau 15 - Distribution des parties du squelette chez les porc et les sangliers.

0-6 mois	1
6-12 mois	1
1-2 ans	8
2-5 ans	2
plus de 5 ans	
Total	12

Tableau 13 - Estimation des âges d'abattage des porcs d'après les usures dentaires.

	moins de				Total	Plus de			Total
	naissance	12 mois	12-30 mois	30-42 mois		12 mois	12-30 mois	30-42 mois	
Sus		17	3	4	24	9	4	2	15

Tableau 14 - Estimation des âges des porcs en fonction des stades d'épiphysation des os du squelette post-crânien.

moins de				Total	Plus de			Total
naissance	6-18 mois	18-36 mois	36-48 mois		6-18 mois	18-36 mois	36-48 mois	
	2	3	2	7	49	26	16	91

Tableau 16 - Estimation des âges des cervidés en fonction des stades d'épiphysation des os du squelette post-crânien.

Parties squelettiques	Cervidés
mandibule	3
dents isolées	3
crâne	2
bois	27
Crâne	35
scapula	10
humérus	6
radius	11
ulna	2
carpe	
Membre antérieur	31
pelvis	6
fémur	6
tibia	17
tarse	17
Membre postérieur	46
métapodes	8
métacarpe	13
métatarse	14
phalange	19
Pied	54
Rachis vertébral	10

Tableau 17 - Distribution des parties du squelette chez les cervidés.

Radius	Sidon	Korucutepe	Gindéris	Lyon 50 000527
BD	61,0	51,5	52,0	50,0
TD	56,0	39,0	35,0	31,0

Tableau 19 - Comparaison des extrémités distales de radius d'ours bruns.

	Poids des restes	%
Mouton et chèvre	1351	5,5
Porc	1948	7,9
Bœuf	7014	28,3
Gazelle	116	0,5
Daim	5825	23,5
Aurochs	3201	12,9
Hippopotame	4595	18,6
Ours	719	2,9
	24769	

Tableau 20 - Fréquences des poids selon les différentes espèces.

	Poids des restes	%
Élevage	10313	41,6
Chasse	14456	58,4

Tableau 21 - Comparaison des fréquences des poids entre les animaux d'élevage et les animaux chassés.

Phalange I	Sidon	Maadi	Maadi	Maadi	Maadi
	Doigt ?	doigt II	Doigt III	Doigt IV	Doigt V
GL	64,5	76,5	76,0	73,0	75,0
Bp	37,0	46,5	57,0	55,5	45,5
SD	26,2	35,5	42,0	41,0	34,0
Bd	31,0	38,5	48,0	48,0	36,5

Tibia	Sidon	Maadi
Bd	(90,0)	100,0

Tibia	Hippopotames actuels n=11		
	moyenne	min.	max.
Bd	90,87	79,5	102,0

Métatarse IV	Sidon	Hippopotames actuels n=12		
		moyenne	min.	max.
GL	149,5	132,9	113,0	146,0
Bp	52,0	46,2	41,0	53,0
SD	46,0	39,8	31,0	46,0
Bd	55,5	48,3	39,0	55,0

Tableau 18 - Comparaison des mesures d'hippopotames.

Site	Pays	Date	Bos %	Sus %	Chasse %	Nombre de restes	Auteur
Qiryat'Ata	Israël	EB IB	25	21	1	147	Sadeh 2000
Esh Shuna	Israël	EBI	13-28	19-37	/	223-335	Croft 1994
En Shadud	Israël	EB I	22	24	/	150	Horwitz 1985
Taur Ikhbeineh	Israël	EB I	29	6	3	135	Horwitz et al. 2002
Yaqush	Israël	EB I	19	4	6	501	Hesse, Wapnish 2002
Yaqush	Israël	EB II	23	1	2	391	Hesse, Wapnish 2002
Yaqush	Israël	EB III	32	1	2	340	Hesse, Wapnish 2002
Tel Dan	Israël	EB II/III	35	5	12	184	Wapnish, Hesse 1991
Megiddo	Israël	EB I	20	1	2	2774	Wapnish, Hesse 2000
Megiddo	Israël	EB III	26	4	2	621	Wapnish, Hesse 2000
Abu en-Ni'aj	Israël	EB IV	11	28	1	4662	Falconer 1994
Dalit	Israël	EB Ib-III	17	1	2	1051	Horwitz, Hellwing, Tchernov 1996
Aï	Israël	EB I	21	1	/	244	Hesse, Wapnish 2002
Aï	Israël	EB II	12	1	4	457	Hesse, Wapnish 2002
Aï	Israël	EB III	12	/	2	117	Hesse, Wapnish 2002
Yarmouth	Israël	EB II	19	/	/	216	Davis 1988
Yarmouth	Israël	EB III	9	/	/	959	Davis 1988
Yarmouth	Israël	EBII-III	8-15	0,1	1	2351	Davis, Hemmer, sous presse
Tel Gat	Israël	EB II	20	9	10	783	Ducos 1968
Arad	Israël	EB II	2	/	1	185	Davis 1976
Halif	Israël	EB III	6	/	1	1905	Zeder 1996
Kinrot	Israël	EB	29	8	1	307	Hellwing 1988/89
Jéricho	Israël	EB I-III	11	2	8	503	Clutton-Brock 1979
Ez Zeraqon	Jordanie	EB	20	1	1	9053	Dechert 1995
Tell Afis	Syrie	EB IV	18	4	2	437	Wilkens 2000
Qatna-Tell Mishrifé	Syrie	EB	31	12	2	249	Vila en cours d'étude

Tableau 22 - Fréquences des espèces domestiques, boeufs et porcs, et de la chasse sur les sites du Levant au Bronze ancien (Tableau élaboré d'après HESSE *et* WAPNISH *2002).*

MESURES

art.	: articulation
Dtp	: diamètre transverse proximal
Dap	: diamètre antéro-postérieur
Dapp	: diamètre antéro-postérieur proximal
Dtm	: diamètre transverse minimal de la diaphyse
Dtd	: diamètre transverse distal
Dapd	: diamètre antéro-postérieur distal
épip.	: épiphysé
juv.	: juvénile
LT	: longueur totale
oc	: *ovis/capra*
troc.	: trochlée

MOUTONS ET CHÈVRES (*OVIS ARIES/ CAPRA HIRCUS*)

Cheville osseuse				
Locus	175	700	56	92
Couche	6	6	5	5
	capra	*ovis*	*capra*	*capra*
Dapd	28	27	24,5	23
Dtd	16,6	17,5	15,5	15,8
	[>82]			

Scapula							
Locus	153	152	170	150	150	109	700
Couche	?	?	?	?	?	3	6
	oc	*ovis*	*ovis*	*ovis juv.*	*oc*	*ovis ?*	*capra ?*
GL processus glénoïde	29	36,5		27,2	27,2	33	32
Larg. cavité glénoïde	16,8		22,2	18,5	19	19,5	21
Long. cavité glénoïde	23,5	28		22	22		27,5
Larg. min. col.		21,5	21,3	15,8			20,2

Humérus							
Locus	165	152	166	189	52	43	116
Couche	6	?	?	?	6	6	1
	ovis ?	*oc*	*ovis ?*	*capra*	*ovis ?*	*ovis*	*capra*
Dtd	26,8	30,8	29,5	32	30,6	31	30
Dapd	23,8			24,8		26,5	23
Dtd min.	28	28,5	27	31	28,8	29	29,5
Dap max.troc.	17		19,8	17	20,5	18,1	17,5
Dap min.troc.	13,5	13	15,2	13,3	16	14	12,5

Radius			
Locus	175	163	72
Couche	6	?	5
	capra ?	*capra*	*oc*
Dtp	29	29,5	29,5
Dapp	15,2	16,5	15,5
Dtp art.	28,1	28,5	
Locus	175	153	50
Couche	6	?	6
	capra	*capra ?*	*ovis juv.*
Dtd	29	28	29
Dapd	19,8	18	20
Dtd art.	25,2	26	
Dapd art.	16,1	16,1	

Métacarpe									
Locus	156	175	175	161	166	708	43	181	24
Couche	6	6	6	?	?	6	6	6	5
	ovis	*capra*	*capra*	*capra*	*ovis*	*ovis*	*capra*	*ovis*	*ovis*
Dtp	23,8	23,5	22	22,8	24	23,3		24,5	24,1
Dapp	16,5	16,1	15,5		16,8	15,5		16,8	17,2
Dtm	13,2					13		12,5	
Dtd							25,2		
Dapd							13,3		
Dtd art.							24,5		
Dapd art.							16,1		

Fémur				
Locus	153	709	181	273
Couche	?	6	6	1
	oc	*ovis*	*oc*	*ovis*
Dtp	40	40,5		42,2
Tête	19,8	18,6		19,5
Dtd			36,5	
Dapd			45	

Tibia							
Locus	705						
Couche	6						
	oc						
Dtp	35						
Locus	149	149	94	700	75	43	43
Couche	?	?	4	6	5	6	6
	capra	*capra*	*ovis*	*capra*	*capra*	*capra*	*ovis*
Dtd	28	24,5	31,2	25	23	25,6	27,8
Dapd	24	20,5	25	19,1	18	20,2	21,5
Dtd art.	19,8	18,5	20,5	18,1	17,2	17,8	19,2

Calcaneum		
Locus	153	192
Couche	?	?
	ovis	*ovis*
LT	66,2	56,1

Talus					
Locus	175	153	166	709	99
Couche	6	?	?	6	4
	capra	*oc*	*capra*	*ovis*	*ovis*
GL latérale	26,2	30,6	29,5	28	28,2
GL médiale	24,5	29,5	27,8	27	
Daplatérale	14,5	16		15,2	16,1
Dtd	17	19,5	18	17,2	17,2
				612,36	639,576

Phalange II	
Locus	205
Couche	?
	capra
Dtp	13
Dtm	10,1
Dtd	10,5
Lt	22

Métatarse			
Locus	150	43	85
Couche	?	6	4
	capra	*ovis*	*ovis*
Dtp	21	22	
Dapp	20,2	20	
Dtm	14,5	11	
Dtd			25,5
Dapd			13,2
Dtd art.			25
Dapd art.			16
Lt			

Phalange I									
Locus	175	175	170	170	205	109	43	43	86
Couche	6	6	?	?	?	3	6	6	5
	ovis	*ovis*	*ovis*	*capra*	*ovis*	*capra*	*capra*	*ovis*	*ovis*
Dtp	12,5	11,8	12,8	11,2	12,5	12,5	15,5	14	12
Dapp	14,2	14	15,2	14,1	15	15,2	18,2	17	14,5
Dtm	10	8,8	10,8	8,2	10,2	9,6	12,3	10,8	9,6
Dtd	12	10,8	12	10,8	12	11,1	15,2	12,5	11
Lt	34	35,2	34,5	30,5	37,6	37,5	45,5	39,5	/

Bovins (*Bos taurus* et *Bos primigenius*)

Cheville osseuse	
Locus	52
Dapd	44,5
Dtd	35

Scapula			
Locus	165	170	43
GL processus glénoide		65	
Larg. cavité glénoide	50,5	41,2	36
Long. cavité glénoide		53,2	
Larg. min. col			51,5

Humérus		
Locus	52	85
Dtd		89
Dapd		77
Dtd min.	61,5	79,3
Dap max. troc.	37,5	46,5
Dap min. troc.	29,5	34

Radius			
Locus	700	700	
Dtp	80,5	[128,0]	
Dapp	43,5	70,0	
Dtp art.	74,5	109,0	
Dtm			
		B. primigenius	
Locus	700	181	10
Dtd	65,20		68,0
Dapd	37,00	[43,5]	40,2
Dtd art.	52,00		54,5
Dapd art.	31,50		
		?	

Fémur	
Locus	700
Dapd	93,0

Pelvis	
Locus	175
larg. acétabulum	68,0

Tibia					
Locus	91	38	700	52	719
Dtp	84,5				
Dapp	80,5				
Dtm					
Dtd		93,0	56,5	54,5	53,2
Dapd		[>76]	46,8	40,2	39,5
Dtd art.		[65]	41,8	38,5	39,0
Dapd art.					
		B. primigenius	associé à talus		

Talus										
Locus	165	165	165	165	165	165	700	700	64	181
GL latérale	66,3	68,2	64,0		58,0	62,2	66,8	61,5	58,5	56,5
GL médiale	59,2	62,5	57,0	60,1	53,5	57,5	60,8	54,5	52,6	53,0
Daplatérale	36,0	36,8	34,2	36,0	31,5	33,0	36,5	33,8	30,5	31,0
Dtd	45,5	45,0	41,0	42,0	36,0	38,2	43,3	39,0	37,4	37,5
								associé à tibia		

Naviculo-cuboïde		
Locus	149	181
DT	49,5	72,8
		B. primigenius

Calcaneum						
Locus	156	156	175	165	165	52
GL	132,5		117,5			
GB	51,5	44,5	43,5	46,5	> 52,5	49,5

Métapodes							
Locus	152	704	116	97	10	74	700
	MC	MC	MC	MC	MT	MT	MT
Dtp	62,5	46,5	60,5	92,0	37,8	49,5	44,5
Dapp	36,5	28,8	36,0	56,0	36,5	47,8	41,5
Dtm			34,3		22,0	26,5	23,0
				B. primigenius			
Locus	700	119	103	149	705	74	
	MC	MC	MC	MC	MTC	MT	
Dtd	45,5	54,5	48,0	54,5		48,0	
Dapd	24,8	27,5	25,2	29,0	22,5	28,5	
Dtd art.		59,5	52,0	59,5		52,2	
Dapd art.	28,0	30,0	29,5	33,0	26,2	30,0	

Phalange I												
Locus	156	165	165	165	192	705	85	43	91	91	709	700
		post.				post. ?			ant. ?	ant. ?	post.	
Dtp		25,0	30,0		25,2	24,0	27,2	26,8	27,8	27,3	24,5	
Dapp		30,5	34,2		29,5	29,2	30,2	32,2	32,6	31,5	29,5	
Dtm	24,9	20,6				21,0	21,2	23,2	23,2	24,0	21,8	22,0
Dtd	28,2	25,5		27,5		24,1	24,5	24,2	25,2	25,6	24,0	24,0
LT	±54,5	57,0				54,2	52,2	50,0	57,0	57,8	55,0	[>52]

Phalange I										
Locus	181	181	181	181	72	700	718	92	91	91
	post. ?	post. ?	ant. ?	ant. ?						ant. ?
Dtp	30,2	26,5	31,5	28,0	48,0	48,5	39,5	40,2		38,2
Dapp	32,8	32,0	30,5	30,0	55,5	51,5	46,5	44,5		47,0
Dtm	27,3	22,8	27,5	23,5	42,8	40,5	33,0	34,5	44,0	32,0
Dtd	28,5		29,5	26,0	42,5		36,8	36,5	44,2	36,0
LT	58,2		61,0	54,0	78,5		79,5	77,0		74,0
					B. primigenius	*B. primigenius*	*B. primigenius*	*B. primigenius*	*B. primigenius*	*B. primigenius*

Phalange I										
Locus	181	181	181	181	72	700	718	92	91	91
	post. ?	post. ?	ant. ?	ant. ?						ant. ?
Dtp	30,2	26,5	31,5	28,0	48,0	48,5	39,5	40,2		38,2
Dapp	32,8	32,0	30,5	30,0	55,5	51,5	46,5	44,5		47,0
Dtm	27,3	22,8	27,5	23,5	42,8	40,5	33,0	34,5	44,0	32,0
Dtd	28,5		29,5	26,0	42,5		36,8	36,5	44,2	36,0
LT	58,2		61,0	54,0	78,5		79,5	77,0		74,0
					B. primigenius	*B. primigenius*	*B. primigenius*	*B. primigenius*	*B. primigenius*	*B. primigenius*

Phalange II										
Locus	175	175	165	153	166	74	35	43	181	181
	post.	post.	post.	post.	post.	post.	ant.	ant.	ant.	ant. ?
Dtp	31,80	35,1	27,0	31,0	27,5	24,6	29,0		30,5	
Dtm	26,10	31,8	25,0	23,5	22,3	19,5	24,2	21,5	25,2	
Dtd	27,10	31,1	26,0		23,0	19,5	24,5	24,5	25,0	22,2
LT	43,00	52,5	42,0	39,5	37,5	37,5	39,0	35,5	40,2	36,2
						petite				

Phalange II						
Locus	700	700	82	48	709	175
	ant.	post.			post.	post. ?
Dtp	45,5	38,8		45,3	43,5	42,8
Dtm	40,5	30,2		36,5	35,0	35,0
Dtd	44,5	32,8		41,0	34,5	34,0
LT	56,5	53,0	49,5	59,3	59,0	56,0
	B. primigenius	*B. primigenius*	*B. primigenius*	*B. primigenius*	*B. primigenius*	*B. primigenius*

Phalange III						
Locus	175	700	700	77	97	120
	60,0	63,0	57,5	71,5	63,5	61,0
	50,8	55,5	43,5	54,0	52,8	50,2
	17,8	20,8	19,9	25,0	23,5	20,5
				B. primigenius		

CERVIDÉS (*DAMA MESOPOTAMICA*)

Bois					
Locus	704	700	700	700	700
Dt rosette	61,3	59,5	53	52,5	39,5
Dap rosette	57,3	52,2			34,5
Dt sous rosette	31,8	38,0	32,2	35,5	28,5
Dap sous rosette	30,0	37,2	30,5	31,8	24,5
Dt au-dessus rosette	53,0	57,5	49,5		32,5
Dap au-dessus rosette	42,0	38,5			24,5
					bois/ chute

Scapula								
Locus	156	91	94	58	44	51	103	125
GL processus glénoïde	40,5			50,0	42,5	52,5	49,0	
Larg. cavité glénoïde	28,0	33,8	31,8	31,0		37,2	35,8	35,5
Long. cavité glénoïde	35,0	38,5	39,5	39,5	33,2	42,0	37,2	47,0
Larg. min. col		26,0	27,2	29,1		30,0	30,2	
				Dama ?		*Dama* ?		

Humérus					
Locus	711	94	700	85	102
Dtp				63,8	
Dapp				69,5	
Dtm					
Dtd	49,5	48,5	49,5		44,0
Dapd	46,5	41,5	47,2		40,5
Dtd min.	48,0	45,5	49,2		43,0
Dap max. troc.	32,5	32,0	34,5		31,0
Dap min. troc.	25,0	24,0	26,5		23,5
				Dama ?	

Radius		
Locus	709	
Dtp	44,5	
Dapp	24,5	
Dtp art.	40,5	
Locus	91	709
Dtm		25,0
Dtd	43,5	39,0
Dapd	28,0	26,5
Dtd art.	36,5	
Dapd art.	23,5	

Ulna		
	66	101
BPC	70,0	55,5
SDO	46,0	35,0
DPA	/	32,8

Pelvis		
Locus	175	75
	46,0	50,0

Fémur						
Locus		705	91	94	107	181
Dtp						80,0
Tête						33,0
Dtd		59,5	56,0	52,0	55,5	
Dapd		78,0	78,5	85,0	79,0	

Tibia								
Locus	72	91	91	94	75	103	719	165
Dtp	68,0	67,2						
Dapp	70,0	69,0						
Dtd			39,5	42,5	42,2	39,2	41,5	40,1
Dapd			32,5	34,5	35,0	34,5	34,0	32,5
Dtd art.				28,6	28,5	27,0	28,2	28,5
	Dama ?	*Dama* ?					(+ talus)	

Talus			
Locus	85	719	714
GL latérale	46,5	46,5	39,5
GL médiale	44,0	44,0	36,5
Daplatérale	25,5	25,5	22,5
Dtd	30,0	28,8	26,8
		(+ tibia)	

Calcaneum						
Locus		165	82	80	85	56
LT		[>89,0]	115,0		102,3	91,5
			Dama ?			

Naviculo-cuboïde		
	181	714
	36,5	36,8

Métapodes								
Locus	719	48	52	218	43			
	MC	MC	MC	MT juv.	MT			
Dtp	30,2	36,3	36,0		33,5			
Dapp	22,8	25,3	26,2		36,8			
Dtm				[21,0]	21,5			
LT				[215]				
		Dama ?	*Dama* ?					
Locus	48	85	181	175	85	714	156	175
	MC juv.	MC	MC	MT ?	MT	MTC	MTC	MTC
Dtm					22,5			
Dtd	32,0	35,0	37,0		38,5		36,6	
Dapd	20,2	21,5	22,8		22,1	22,8	19,0	20,5
Dtd art.	31,5	36,0	36,5		38,2		37,0	
Dapd art.	20,5	23,5	24,5	22,5	23,8	24,8	23,8	24,0
		Dama ?	*Dama* ?		*Dama* ?			

Phalange I											
Locus	175	175	705	82	76	709	700	700	700	47	715
			ant.								ant.
Dtp	18,0	20,2	19,0	18,8	19,5	19,0	20,8	17,8	18,2	17,5	18,2
Dapp	22,0	25,6	24,0		23,5	23,6	25,5	22,2	23,0	20,6	23,0
Dtm	14,5	13,8	16,5	14,0	15,5	13,5		14,1	14,3	13,2	12,5
Dtd	16,2	16,8	16,5	15,8	17,5	17,1		16,6	16,5	15,8	15,5
LT	50,5	54,5	50,0	46,8	51,0	50,0		50,5	51,0	48,0	47,6
	Dama ?		*Dama* ?	*Dama* ?	*Dama* ?			*Dama* ?	*Dama* ?		
	3,48276	3,94928	3,0303	3,3428571	3,29032	3,7037		3,58156	3,56643	3,63636	3,808

Phalange II						
Locus	165	165	109	97	53	719
Dtp	19,0	18,5	17,2	23,2	18,0	
Dapp	24,1	22,1	22,0	30,0	23,5	
Dtm	16,5	13,8	13,5	18,0	13,5	13,0
Dtd	15,1	14,8	14,6	21,0	13,8	14,8
LT	38,5	36,5	34,5	40,1	37,5	
	Dama ?	*Dama* ?	*Dama* ?	*C. elaphus* ?	*Dama* ?	

Phalange III	
Locus	181
	44,5
	37,2
	11,8
	Dama ?

HIPPOPOTAME

Atlas	
Locus	82
Dt max.	350,0
HT	150,0
Dt art. occ	175,0
Dt art axis	185,0
Dt trou	67,0
Ht trou	78,0
Dap ventral min.	61,0
Dap dorsal min.	70,0

Métapode			
Locus	175	705	181
	MTC	MTC	MT IV
	juvénile		
Dapp			52
			/
Dtm			46
Dapm	34,1		26,5
Dtd	42,0	56,2	55,5
Dapd	36,1	44,0	46,5
Dtd art.			52
Dapd art.		44,5	
Lt			149,5

Phalange I	
Locus	175
	doigt II ou III
BP	37,0
Dapp	42,5
Dapp art	38,2
Dtm	26,2
Dapm	24,5
Dtd	31,0
Dapd	30,5
LT	64,5

Axis	
Locus	82
Long. dent	27,8

Pelvis	
Locus	109
épaisseur illion	75,5

Tibia		
Locus	76	700
	juv. non épip.	
Dtp	[120,5]	
Dapd		79,0
Dtd art.		[90,0]

GRANDS MAMMIFÈRES

Pelvis	
Locus	175
larg. acétabulum	77
	B. primigenius ?

GAZELLE

Cheville osseuse	
Locus	165
Dtd	27,0
Dapd	36,0
LT	±160

COCHONS ET SANGLIERS (*SUS SCROFA*)

Mandibule					
Locus	700	34	34	265	265
	canine	M1 inf	M2	M1 inf	M2 inf
Dt	25,5	16,5	21,2	13,0	17,5
Dap		10,5	13,5	8,8	11,5
LT	85,0				

Scapula		
Locus	708	719
GL processus glénoide	50,0	40,0
Larg. cavité glénoide	33,5	29,0
Long. cavité glénoide	40,5	38,0
Larg. min. col	36,5	26,5
	Sanglier ?	Sanglier ?

Maxillaire					
Locus	107	107	85	85	265
	M2	M3	M2	M3	M2
Dt	22,2	37,5	24,0	37,5	13,5
Dap	21,0	23,0	19,5	23,0	11,8
	Sanglier ?	Sanglier ?	Sanglier ?	Sanglier ?	

Humérus		
Locus	63	181
Dtp	48,0	
Dapp	64,5	
Dtm	14,2	
Dtd		/
Dapd	39,5	37,2
Dtd min.		/
Dap max.troc.		26,5
Dap min.troc.		/

Radius	
Locus	64
Dtp	32,5
Dapp	22,0

Fémur	
Locus	63
Dtd	44,0
Dapd	58,0

Calcaneum	
Locus	107
LT	101,0
	Sanglier ?

Pelvis
234
41,5

Métapodes	
Locus	64
	MC III
Dtp	24,3
Dtm	17,5
Dtd	23,0
Dtd art.	21,0
LT	89,5

Phalange I		
Locus	64	51
Dtp	22,8	18,3
Dapp	22,2	20
Dtm	16,2	14,3
Dtd	19,5	17,5
LT	41,5	40,0

GRANDS CARNIVORES

Humérus	
Locus	73
	5
	Ursus
Dtp	71,0
Dapp	87,0
Dt art.	59,0
Dtm	38,0

Scapula
718
6
Ursus
80,0
42,0
62,8

Radius	
Locus	711
	6
	Ursus
Dtd	61,0
Dapd	43,0
Dtd art.	56,0
dapd art.	35,0

Fémur	
Locus	74
	5
	Ursus ?
Dtd	72,0
Dapd	51,0

Métapodes			
Locus	38	700	53
	6	6	6
	MC II	MTV	MT III
	Ursus	*Ursus*	*Panthera leo*
Dtp	22,2	29,0	15,5
Dapp	27,0	32,0	21,0
Dtm		14,8	12,5

Phalange I	
Locus	709
	6
	Panthera leo
Dtp	20,8
Dapp	17,5
Dtm	14,1
Dtd	14
LT	56

EQUIDÉS

Molaires inférieures		
Locus	700	43
	M3	P3/4
Dap	27,8	25,5
DT	12,6	19,0
DB	11,5	16,2
Ht		60,5
		pli caballinique

Chapter X. Bibliography

Achilles Tatius : *The Loves of Clitophon and Leucippe*, Simon & Schuster, translated by William Burton, B. Blackwell, Oxford, 2005.

Albright W. F., 1932 : "The Excavations of Tell Beit Mirsim I: The Pottery of the First Three Campaigns", *The Annual of the American Schools of Oriental Research*, XII, New Haven, p. 1-165.

Albright W. F., 1933 : "The Excavations of Tell Beit Mirsim I A: The Bronze Age Pottery of the Fourth Campaign", *The Annual of the American Schools of Oriental Research,* XIII, New Haven, p. 55-128.

Alhaique F., sous presse : "Un ippopotamo a colazione? Presenza olocenica di Hippopotamus amphibius in un sito interno del Levante del Sud (Bronzo Antico)", *Atti del 3° Convegno Nazionale di Archeozoologia (Siracusa 3-5 Novembre 2000).*

Alon D., 1976 : "Two Cult Vessels from Gilat", *Atiqot* (English series), XI, p. 116-118.

Alon D. & Levy T. E., 1989 : "The Archaeology of Cult and the Chalcolithic Sanctuary at Gilat", *Journal of Mediterranean Archaeology*, 2/2, p. 163-221.

Amiet P., 1955 : "Cylindres-sceaux conservés à Jérusalem", *RB*, LXII, p. 407-413.

Amiet P., 1956 : "Le symbolisme cosmique du répertoire animalier en Mésopotamie", *Revue d'Assyriologie et d'Archéologie Orientale*, 3, p. 113-126.

Amiet P., 1964 : "Cylindres syriens présargoniques", *Syria*, XLI, p. 189-193.

Amiet P., 1972 : *Glyptique susienne des origines à l'époque des Perses Achéménides*, Mémoires de la délégation archéologique en Iran, vol. I, texte, Paris.

Amiet P., 1980 : *La glyptique mésopotamienne archaïque*, Paris.

Amiran R., 1969 : *Ancient Pottery of the Holy Land*, Jerusalem.

Amiran R., 1970 : "The Beginnings of Urbanization in Canaan", in Sanders J. A. (ed.), *Near Eastern Archaeology in the Twentieth Century, Essays in Honor of Nelson Glueck*, Garden city, New York, Doubleday, p. 83-100.

Amiran R., 1974 : "The Painted Pottery Style of the Early Bronze II Period in Palestine", *Levant*, VI, p. 65-68.

Amiran R., 1978 : *Early Arad, The Chalcolitic Settlement and Early Bronze City*, Jerusalem.

Amiran R., 1981 : "Some Observations on Chalcolithic and Early Bronze Age Sanctuaries and Religion", in *Temples and High Places in Biblical Times. Proceedings of the Colloquium in Honor of the Centennial of Hebrew Union College-Jewish Institute of Religion, Jerusalem, 14-16 March 1977*, Jerusalem, p. 47-53.

Amiran R., 1986 : "Some Cult-and-Art Objects of the EBI Period", in Kelly-Buccellati M., Matthiae P. & Van Loon M., *Insight Through Images: Studies in Honor of Edith Porada*, Bibliotheca Mesopotamica 21, Malibu, California, p. 713.

Amiran R., 1989 : "Re-Examination of a Cult-and-Art Object from Beth Yerah", in Leonard A. & Williams B. B., *Essays in Ancient Civilisation presented to Helen J. Kantor,* Studies in Oriental Civilization 47, Chicago, Illinois, p. 31-33.

Anderson P. & Inizan M.-L., 1994 : "Utilisation du tribulum au début du III[e] millénaire : des lames 'cananéennes' lustrées à Kutan (Ninive 5) dans la région de Mossoul, Irak", *Paléorient*, 20/2, p. 85-103.

Andrae W., 1922 : *Die Archaischen Ischtar-Temple in Assur*, (*Ausgrabungen der Deutschen Orient-Gesellschaft IV*), Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft 39, Leipzig.

Asmar C., 1997 : "Histoire des collections du Musée national de Beyrouth : la collection Ford", *NMN*, 5, p. 2-6.

Badre L., 1997 : " Bey 003 Preliminary Report", *BAAL*, 2, p. 6-94.

Bar-Adon P., 1962 : "Expedition C - The Cave of the Treasure", *IEJ*, 12, p. 215-226.

Bar-Adon P., 1971 : *The Cave of the Treasure. The Finds from the Caves in Nahal Mishmar*, Jerusalem.

Baramki D., 1973 : "A Tomb of the Early and Middle Bronze Age at Byblos", *BMB*, XXVI, p. 27-30.

Barnett R. D., 1966 : "Homme masqué ou dieu-ibex?", *Syria*, XLIII, p. 259-276.

Bartosiewicz L., Van Neer W. & Lentacker A., 1997 : *Draught Cattle: their Osteological Identification and History*, Annales sciences zoologiques, 281, Musée royal de l'Afrique centrale, Tervuren.

Béal J.-C. & Goyon J.-C., 2000 : *Des ivoires et des cornes dans les mondes anciens (Orient-Occident)*, Collection de l'Institut d'archéologie et d'histoire de l'Antiquité, Université Lumière-Lyon 2, Paris.

BECK P., 1985 : "An Early Bronze Age 'Family' of Bowls from Tel Aphek", *Tel Aviv*, 12, p. 17-28.

BECK P., 1989 : "Notes on the Style and Iconography of the Chalcolithic Hoard from Nahal Mishmar", in Leonard A. & Williams B. B. (ed.), *Essays in Ancient Civilization Presented to Helen J. Kantor*, Studies in Oriental Civilization 47, Chicago, Illinois. p. 39-54.

BECK P., 2000 : "Area B: Pottery", in Kochavi M., Beck P. & Yadin E., *Aphek-Antipatris I, Excavation of Areas A and B. The 1972-1976 Seasons*, Tel Aviv University, Sonia and Marco Nadler Institute of Archaeology, Monograph Series, 19, Tel Aviv, p. 93-111.

BEN-TOR A., 1977 : "Cult Scenes on Early Bronze Age Cylinder Seal Impressions from Palestine", *Levant*, IX, p. 90-100.

BEN-TOR A., 1978 : *Cylinder Seals of Third Millennium Palestine*, American Schools of Oriental Research, supplement series, Cambridge, MA.

BEN-TOR A., 1986 : "The Trade Relations of Palestine in the Early Bronze Age", *Journal of the Economic and Social History of the Orient*, XXIX, p. 1-27.

BEN-TOR A., 1989 : "Byblos and Early Bronze I Palestine", in de Miroschedji P., *L'urbanisation de la Palestine à l'âge du Bronze ancien, bilan et perspectives des recherches actuelles, Actes du Colloque d'Emmaüs (20-24 octobre 1986)*, I, II, BAR, Int. Series, Oxford, p. 41-52.

BEN-TOR A., 1992 : "New Light on Cylinder Seal Impressions Showing Cult Scenes from Early Bronze Age Palestine", *IEJ*, 42, p. 153-164.

BEN-TOR A., 1994 : "Early Bronze Age Cylinder Seal Impressions and a Stamp Seal from Tel Qashish", *BASOR*, 295, p. 15-29.

BIKAI P. M., 1978 : *The Pottery of Tyre*, Aris & Phillips, Warminster.

BIRAN A., ILAN D. & GREENBERG R., 1996 : *Dan I, A Chronicle of the Excavations, the Pottery Neolithic, the Early Bronze Age and the Middle Bronze Age Tombs*, Nelson Glueck School of Biblical Archaeology, Hebrew Union College, Jewish Institute of Religion, Jerusalem.

BIRD I., 1872 : *Bible Work in Bible Lands or Events in the History of the Syria Mission*, Presbyterian Board of Publication, Philadelphia.

BITTEL K., 1981 : *Bogazköy-Hattusa XI*, Gebr. Mann Verlag, Berlin.

BOEHMER R. M., 1972 : "Die Keramikfunde im Bereich des Steingebäudes", in Schmidt J., *XXVI. und XXVII. Vorläufiger Bericht über die von dem Deutschen Archäologischen Institut und der Deutschen Orient-Gesellschaft aus Mitteln der Deutschen Forschungsgemeinschaft unternommenen Ausgrabungen in Uruk-Warka*, Abhandlungen der Deutschen Orient-Gesellschaft, Berlin, p. 31-42.

BOEHMER R. M., 1999 : *Uruk Früheste Siegelabrollungen*, Deutsches Archäologisches Institut Orient-Abteilung, Mainz am Rhein.

BOESSNECK J. & VON DEN DRIESCH A., 1975 : "Tierknochenfunde vom Korucutepe bei Elazig in Ostanatolien", in Van Loon M. N. (ed.), *Korucutepe*, North-Holland Publishing Company Amsterdam, p. 1-220.

BOESSNECK J. & VON DEN DRIESCH A., 1989 : "Die Faunenreste vom Tell Halawa am Assad-See/Nordsyrien", in Orthmann W. (ed.), *Halawa 1980 bis 1986*, Saarbrücker Beiträge zur Altertumskunde 52, Rudolf Habelt, Bonn, p. 113-152.

BOESSNECK J., VON DEN DRIESCH A. & ZIEGLER R., 1989 : "Die Tierreste von Maadi und dem Friedhof am Wadi Digla", in Rizkana I. et Seeher J. (ed.), *Maadi III, The Non-Lithic Small Finds and the Structural Remains of the Predynastic Settlement*, Archäologische Veröffentlichungen 80, Verlag Philipp von Zabern, Mainz am Rhein, p. 87-128.

BOESSNECK J., MULLER H. H. & TEICHERT M., 1964 : "Osteologische Unterscheidungsmerkmale zwischen Schaf (*Ovis aries* Linné) und Ziege (*Capra hircus* Linné)", *Kühn-Archiv*, 78, 12, p. 1-229.

BÖKÖNYI S., 1978 : "Environmental and Cultural Differences as Reflected in the Animal Bone Samples from Five Early Neolithic Sites in Southwest Asia", in Meadow R. H. & Zeder M. A. (ed.), *Approaches to Faunal Analysis in the Middle East*, Peabody Museum Bulletin 2, Harward University, p. 57-62.

BÖKÖNYI S., 1983 : "Late Chalcolithic and Early Bronze I Animal Remains from Arslantepe (Malatya), Turkey, a Preliminary Report", *Origini*, 12/2, p. 581-598.

BÖKÖNYI S., 1990 : *Kamid el-Loz 12. Tierhaltung und Jagd*, Saarbrücker Beiträge zur Altertumskunde 42, Dr. Rudolf Habelt, Bonn.

BOSOLD K., 1968 : "Geschlechts- und Gattungsunterschiede an Metapodien und Phalangen mitteleuropäischer Wildwiederkäuer", *Säugetierkundliche Mitteilungen*, 2, p. 93-153.

BOUCHUD J., 1987 : *La faune du gisement natoufien de Mallaha (Eynan) Israel*, Mémoires et Travaux du Centre de Recherche français de Jérusalem, 4, Paris.

BOUNNI A. & AL-MAQDISSI M., 1994 : "La céramique peignée à la lumière des fouilles syriennes à Tell Sianu", in Calmeyer P., Hecker K., Jakob-Rost L. & Walker C. B. F. (ed.), *Beiträge zur Altorientalischen Archäologie und Altertumskunde*, Festschrift für Barthel Hrouda zum 65. Geburtstag, Wiesbaden, p. 19-29.

BRAIDWOOD R. J. & BRAIDWOOD L. S., 1960 : *Excavations in the Plain of Antioch*, The University of Chicago Oriental Institute Publications, vol. LXI, Chicago, Illinois.

BRAITHWAITE M., 1982 : "Decoration as Ritual Symbol: a Theoretical Proposal and an Ethnographic Study in Southern Sudan", in Hodder I. (ed.), *Symbolic and Structural Archaeology*, Cambridge University Press, Cambridge, p. 80-88.

BRAUN E., 1989 : "The Transition from the Chalcolithic to the Early Bronze Age in Northern Israel and Jordan: is there a Missing Link?", in de Miroschedji P., *L'urbanisation de la Palestine à l'âge du Bronze ancien, bilan et perspectives des recherches actuelles, Actes du Colloque d'Emmaüs (20-24 octobre 1986)*, I, II, BAR, Int. Series, Oxford, p. 7-28.

BRAUN E., 2000 : "Area G at Afridar, Palmahim Quarry 3 and the Earliest Pottery of Early Bronze Age I: Part of the 'Missing Link' ", in Philip G. & Baird D. (ed.), *Ceramics and Change in the Early Bronze Age of the Southern Levant, Levantine Archaeology 2*, Sheffield Academic Press, Sheffield, p. 113-128.

BRAUN E., 1985 : *En Shadud : Salvage Excavations at a Farming Community in the Jezreel Valley, Israel*, BAR, Int. Series 249, Oxford.

BRIEND J. & SEUX M.-J., 1977 : *Textes du Proche-Orient Ancien et histoire d'Israël*, Éditions du Cerf, Paris.

BUITENHUIS H., 1985 : "The Faunal Remains from Tell es-Sweyhat", *Palaeohistoria*, 25, p. 131-144.

BUITENHUIS H., 1988 : *Archeozoölogish Onderzoek langs de Midden-Eufraat*, Doctoraat in de Wiskunde en Natuurwetenschappen aan de Rijkuniversiteit Groningen.

BYTINSKI-SALZ H., 1965 : "Recent Findings of *Hippopotamus* in Israel", *Israel Journal of Zoology*, 14, p. 38-43.

CALLAWAY J. A., 1972 : *The Early Bronze Age Sanctuary at Ai (et-Tell)*, Colt Archaeological Institute Publications, London.

CALLAWAY J. A., 1978 : "New Perspectives on Early Bronze III in Canaan", in Moorey R. & Parr P. (ed.), *Archaeology in the Levant, Essays for K. Kenyon,* Warminster, p. 46-58.

CALLAWAY J. A., 1980 : *The Early Bronze Age Citadel and Lower City at Ai (et-Tell), A Report of the Joint Archaeological Expedition to Ai (et-Tell)*, no. 2, American Schools of Oriental Research, Cambridge, MA.

CANEVA I., 1993 : "From Chalcolithic to Early Bronze III at Arslantepe: a Lithic Perspective", in Frangipane M., Hauptmann H., Liverani M., Matthiae P. & Mellink M. (ed.), *Between Rivers and over the Mountains, Archaeologica Anatolica et Mesopotamica Alba Palmieri dedicata*, Roma, Dipartimento di Scienze Storiche Archeologiche e Antropologiche dell'Antichità, Università di Roma "La Sapienza", Roma, p. 320-339.

CAUBET A., 1986 : "Le thème du lion à Chypre au Bronze récent : à propos de trouvailles de Kition-Bamboula", in Karageorghis V. (ed.), *Acts of the International Archaeological Symposium. Cyprus between the Orient and the Occident, Nicosia, 8-14 septembre 1985*, Department of Antiquities, Nicosia, p. 300-310.

CAUBET A., 1999 : "Remarques sur les fouilles du Dr. Georges Contenau à Helalieh et Ayaa (Sidon)", *NMN*, 10, p. 9-14.

CAUBET A. & POPLIN F., 1987 : "Les objets en matière dure animale. Étude du matériau", in M. Yon *et al.*, *Le centre de la ville, 38e-44e campagnes (1978-1984)*, Ras Shamra-Ougarit III, ADPF, Paris, p. 273-306.

CAUVIN J., 1968 : *Les outillages néolithiques de Byblos et du littoral libanais*, A. Maisonneuve, Paris.

CAUVIN J., 1997 : *Naissance des divinités, naissance de l'agriculture*, CNRS, Paris.

CAUVIN M.-C., 1983 : "Les faucilles préhistoriques du Proche-Orient, données morphologiques et fonctionnelles", *Paléorient*, 9/1, p. 63-79.

CHABOT J., 2001 : "Persistance des outils en pierre taillée à l'âge du Bronze Ancien en Syrie du nord (3000-2500 av. J.C)", in *Recherches Canadiennes sur la Syrie antique, Actes du Colloque annuel de la Société canadienne des études mésopotamiennes*, Musée de la civilisation à Québec, BCMS, 36, p. 61-68.

CLERMONT-GANNEAU Ch., 1902 : "Les inscriptions phéniciennes du temple d'Echmoun à Sidon", in *Recueil d'archéologie orientale V*, p. 217-267.

CLERMONT-GANNEAU Ch., 1921 : "Le paradeisos royal achéménide de Sidon", *RB*, XXX, p. 106-109.

CLUTTON-BROCK J., 1979 : "The Mammalian Remains from the Jericho Tell", *Proceedings of the Prehistoric Society*, 45, p. 135-157.

COLLON D., 1987 : *First Impressions*, British Museum Publications, London.

CONTENAU G., 1920 : "Mission archéologique à Sidon (1914)", *Syria*, I, p. 1-147.

CONTENAU G., 1923 : "Deuxième mission archéologique à Sidon (1920)", *Syria*, IV, p. 261-281.

CONTENAU G., 1924a : "Deuxième mission archéologique à Sidon (1920), deuxième article", *Syria*, V, p. 9-23.

CONTENAU G., 1924b : "Deuxième mission archéologique à Sidon (1920), troisième article", *Syria*, V, p. 123-134.

CONTENSON H. DE, 1961 : "Remarques sur le Chalcolithique récent de Tell esh-Shuna", *RB*, LXVIII, p. 546-556.

CONTENSON H. DE, 1973 : "Le niveau halafien de Ras Shamra : rapport préliminaire sur les campagnes 1968-1972 dans le sondage préhistorique", *Syria*, L, p. 13-33.

CONTENSON H. DE, 1989 : "Rapports entre la Palestine et Ras Shamra-Ugarit au Bronze Ancien", in Miroschedji P. de (ed.), *L'urbanisation de la Palestine à l'âge du Bronze ancien, bilan et perspectives des recherches actuelles, Actes du Colloque d'Emmaüs (20-24 octobre 1986)*, I, II, BAR, Int. Series, Oxford, p. 317-329.

CONTENSON H. DE, 1992 : *Préhistoire de Ras Shamra, les sondages stratigraphiques de 1995 à 1976, I: texte, II: figures et planches*, Ras Shamra-Ougarit VIII, Éditions Recherche sur les civilisations, Paris.

COQUEUGNIOT E., 1993 : "Un atelier spécialisé dans le palais de Mari, outils de pierre taillée et travail de la nacre à la fin de l'Early Dynastic", *Mari, Annales de Recherches Interdisciplinaires*, 7, Éditions Recherche sur les civilisations, Paris, p. 205-250.

CORNELIUS I., 1989 : "The Lion in the Art of the Ancient Near East: A Study of Selected Motifs", *Journal of Northwest Semitic Languages*, XV, p. 53-85.

CROFT P., 1994 : "Some Preliminary Comments on Animal Remains from the First Three Seasons at Shuna", *Levant*, 26, p. 131-132.

COURTOIS J.-C., 1962 : "Sondages 1959, Contribution à l'étude des civilisations du Bronze Ancien à Ras Shamra-Ugarit", in Schaeffer C. F. A., *Ugaritica IV*, Imprimerie Nationale, Paris, p. 415-475.

DE CUPERE B., 2001 : *Animals at Ancient Sagalassos, Evidence of the Faunal Remains*, Studies in Eastern Mediterranean Archaeology IV, Brepols, Turnhout.

CURTIS J., 1999 : "New Excavation at Sidon", *NMN*, 10, p. 27-28.

DAVIS S. J. M., 1985 : "The Large Mammal Bones", in Mazar A., *Excavations at Tell Qasile, part 2*, Qedem 20, p. 148-150.

DAVIS S. J. M. & HEMMER H., sous presse : "More Animal Bones from Tel Yarmouth: an Early Bronze Age Site in Israel", in *Yarmouk 2*, in press.

DAWSON W., 1895 : *Modern Science in Bible Lands*, 3rd ed., Hodder & Stoughton, London.

DECHERT B., 1995 : "The Bone Remains from Hirbet ez-Zeraqon", in Buitenhuis H. & Uerpmann H.-P., (ed.), *Archaeozoology of the Near East II*, Bachuys Publishers, Leiden, p. 79-87.

DESCHAMPS P., 1939 : *La défense du royaume de Jérusalem, les châteaux des Croisés en Terre-Sainte II*, P. Geuthner, Paris.

DESSE J., 1982 : "Analyse d'un échantillon d'ossements provenant du site de Ras-Shamra, Syrie (campagne 1979)", *Syria*, LIX, p. 196-198.

DEVER W. G., 1980 : "New Vistas on the EB IV ("MB I") Horizon in Syria-Palestine", *BASOR*, 237, p. 35-64.

DEVER W. G., 1998 : "Social Structure in the Early Bronze IV Period in Palestine", in Levy T. E., *The Archaeology of Society in the Holy Land*, Leicester University Press, London, p. 283-296.

DEVER W. G. & ALBRIGHT W. F., 1976 : "The Beginning of the Middle Bronze Age in Syria-Palestine", in Cross F. M., Lemke W. E. & Miller P. D., *Magnalia Dei the Mighty Acts of God, Essays on the Bible and Archaeology in Memory of G. Ernest Wright*, Doubleday, New York, p. 3-38.

DEVER W. G. & RICHARD S., 1977 : "A Reevaluation of Tell Beit Mirsim str. J", *BASOR*, 226, p. 1-14.

DORNEMANN R. H., 1979 : "Tell Hadidi: A Millennium of Bronze Age city Occupation", in Freedman D. N., *Archaeological Reports from the Tabqa Dam Project-Euphrates Valley, Syria,* Annual of the American Schools of Oriental Research 44, Cambridge, MA, p. 113-151.

DOUMET-SERHAL C., 1998-1999 : "First Season of Excavation at Sidon: Preliminary Report", *BAAL*, 3, p. 181-224.

DOUMET-SERHAL C., 1999 : "Introduction", *NMN*, 10, p. 2-3.

DOUMET-SERHAL C., 1999 : "Discoveries in Little Sidon", *NMN*, 10, p. 29-39.

DOUMET-SERHAL C., 1999 : "Discoveries around the Harbour", *NMN*, 10, p. 40-41.

DOUMET-SERHAL C., 2000 : "Second Season of Excavation at Sidon: Preliminary Report", *BAAL*, 4, p. 75-122.

DOUMET-SERHAL C., 2001 : "A Ram's Head Handle from Sidon", *AHL*, 13, p. 9-15.

DOUMET-SERHAL C., 2001b : "Third Season of Excavation at Sidon, Preliminary Report", *BAAL*, 5, p. 153-172.

DOUMET-SERHAL C., 2003 : "Excavating Sidon, 1998-2003", *AHL*, 18, p. 2-19.

DOUMET-SERHAL C., 2003b : "Fourth Season of Excavation at Sidon, Preliminary Report", *BAAL*, 6, p. 179-210.

DOUMET-SERHAL C., MAILA-AFEICHE A.-M., EL-DAHDAH F. & RABATE A., 1998 : *Stones and Creed, 100 Artefacts from Lebanon's Antiquity*, The Lebanese British Friends of the National Museum, Beirut.

DOUMET-SERHAL C., 2004 : "Sidon British Museum Excavations 1998-2003", in Doumet-Serhal C. (ed.), in collaboration with Resek A. & Rabate A., *Decade, A Decade of Archaeology and History in the Lebanon*, The Lebanese British Friends of the National Museum, Beirut, p. 102-123.

DRIESCH A. VON DEN, 1976 : *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Peabody Museum, Bulletin 1.

DRIESCH A. VON DEN, BOESSNECK J., 1974 : "Kritische Anmerkungen zur Widerristhöhenberechnung aus Längenmaßen vor- und frühgeschichtlicher Tierknochen", *Säugetierkundliche Mitteilungen,* 22, p. 325-348.

DRIESCH A. VON DEN, BOESSNECK J., 1981 : *Reste von Haus- und Jagdtieren aus der Unterstadt von Bogazköy-Hattusa*, Gebr. Mann Verlag, Berlin.

DUCOS P., 1968 : *L'origine des animaux domestiques en Palestine*, Publications de l'Institut de Préhistoire de l'Université de Bordeaux, Mémoire 6, Bordeaux.

DUCOS P. & HORWITZ L. K., 1997 : "The Influence of Climate on Artiodactyl Size during the Late Pleistocene-Early Holocene of the Southern Levant", *Paléorient*, 23/2, p. 229-247.

DUNAND M., 1926 : "Recherches archéologiques à Bostan ech-Cheikh, près Saida", *Syria*, VII, p. 1-7.

DUNAND M., 1936 : "Remarques sur la céramique archaïque des pays cananéens", *Berytus*, III, p. 141-147.

DUNAND M., 1937 : *Fouilles de Byblos I, 1926-1932, Atlas*, Bibliothèque archéologique et historique, 24, P. Geuthner, Paris.

DUNAND M., 1939 : "Chronique", *BMB*, III, p. 79-81.

DUNAND M., 1940 : "Chronique", *BMB*, IV, p. 118.

DUNAND M., 1941 : "Chronique", *BMB*, V, p. 88-89.

DUNAND M., 1942-1943 : "Chronique", *BMB*, VI, p. 82-83.

DUNAND M., 1945 : *Byblia Grammata. Documents et recherches sur le développement de l'écriture en Phénicie*, Études et documents d'archéologie, tome 2, Beyrouth.

DUNAND M., 1952 : "Byblos au temps du Bronze Ancien et de la conquête Amorrite", *RB*, 59, p. 82-90.

DUNAND M., 1954 : *Fouilles de Byblos II*, tome I, A. Maisonneuve, Paris.

DUNAND M., 1965 : "Nouvelles inscriptions phéniciennes du temple d'Echmoun à Bostan ech-Cheikh, près Sidon", *BMB*, XVIII, p. 23-36.

DUNAND M., 1967 : "Rapport préliminaire sur les fouilles de Sidon en 1964-1965", *BMB*, XX, p. 27-44.

DUNAND M., 1971 : "La piscine du trône d'Astarté dans le temple d'Echmoun à Sidon", *BMB*, XXIV, p. 19-25.

DUNAND M., SALIBY N. & KHIRICHIAN A., 1954-55 : "Les fouilles d'Amrith en 1954", *AAAS*, IV, V, p. 189-204.

DUSSAUD R., 1927 : *Topographie historique de la Syrie antique et médiévale*, P. Geuthner, Paris.

EISELEN F. C., 1907 : *Sidon, a Study in Oriental History*, Columbia University Oriental Studies, New York.

Eisenberg E., 1989 : "The Chalcolithic and Early Bronze I Occupations at Tel Teo", in Miroschedji P. de, *L'urbanisation de la Palestine à l'âge du Bronze ancien, bilan et perspectives des recherches actuelles, Actes du Colloque d'Emmaüs (20-24 octobre 1986)*, I, II, BAR, Int. Series, Oxford, p. 29-39.

Elliott C., 1978 : "The Religious Beliefs of the Ghassulians c. 4000-3100 B.C.", *PEQ*, p. 3-25.

Emery W. B., 1958 : *Excavations at Sakkara, Great Tombs of the First Dynasty III*, Egypt Exploration Society, London.

Engberg R. M. & Shipton G. M., 1934 : *Notes on the Chalcolithic and Early Bronze Age Pottery of Megiddo*, The University of Chicago Press, Chicago.

Epstein C., 1966 : *Palestinian Bichrome Ware*, E. J. Brill, Leiden.

Epstein C., 1974 : "Middle Bronze Age Tombs at Kefar Szold and Ginosar", *Atiqot*, Hebrew Series, 7, p. 13-39.

Epstein C., 1975 : "Basalt Pillar Figures from the Golan", *IEJ*, 25, p. 193-201.

Epstein C., 1978 : "Aspects of Symbolism in Chalcolithic Palestine", in Moorey R. & Parr P. (ed.), *Archaeology in the Levant, Essays for Kathleen Kenyon*, Warminster, p. 23-32.

Espic K., 2002 : "Les ports antiques de Sidon: nouvelles données paléoenvironnementales", *AHL*, 15, p. 28-36.

Esse D. L., 1991 : *Subsistence, Trade, and Social Change in Early Bronze Age Palestine*, Studies in Ancient Oriental Civilization 50, Chicago, Illinois.

Falconer S. E., 1994 : "Village Economy and Society in the Jordan Valley: A Study of Bronze Age Rural Complexity", in Schwartz G. M. & Falconer S. E., *Archaeological Views from the Countryside, Village Communities in Early Complex Societies*, Smithsonian Institution Press, Washington, p. 121-142.

Fargo V. M., 1979 : *Settlement in Southern Palestine During Early Bronze III*, The University of Chicago (PHd theses), Chicago.

Fargo V. M., 1979a : "Early Bronze Age Pottery at tell el-Hesi", *BASOR*, 236, p. 23-40.

Faure M., 1985 : "Les hippopotames quaternaires non-insulaires d'Europe occidentale", *Nouvelles Archives du Muséum d'Histoire naturelle de Lyon*, 23, p. 13-79.

Faure M., 1986 : "Les hippopotamidés du gisement Pléistocène Ancien d'Oubeidiyeh", in Tchernov E., *Les Mammifères du Pléistocène Inférieur de la Vallée du Jourdain à Oubeidiyeh*, Mémoires et Travaux du Centre de Recherche Français de Jérusalem 5, Association Paléorient, Paris, p. 107-142.

Flender M., 2000 : "Cylinder Seal Impressed Vessels of the Early Bronze Age III in Northern Palestine", in Philip G. & Baird D., *Ceramics and Change in the Early Bronze Age of the Southern Levant*, Levantine Archaeology, 2, Sheffield Academic Press, Sheffield, p. 295-313.

Frost H., 1973 : "The Offshore Island Harbour at Sidon and other Phoenician Sites in the Light of New Dating Evidence", *The International Journal of Nautical Archaeology and Underwater Exploration*, 2.1, p. 75-94.

Frost H., 2000 : "Installations on the Ancient Offshore Anchorage at Sidon (the Rock Island of Zire)", *NMN*, 10, p. 69-73.

Fugmann E., 1958 : *Hama II/I, L'architecture des périodes pré-hellénistiques*, National-museets Skrifter, Større Beretninger, Copenhagen.

Gagnier P. Y., 1986 : "Les restes fauniques du site archéologique de Ras al Basit, Syrie", *Syria*, LXVIII, p. 247-255.

Garfinkel Y., 1998, "The Platter: a New Ceramic Type of the Chalcolithic Period", *Levant*, 30, p. 191-194.

Garfinkel Y., 1999a : "Ghassulian Chalcolithic Presence at Jericho", *Levant*, 31, p. 65-69.

Garfinkel Y., 1999b : *Neolithic and Chalcolithic Pottery of the Southern Levant*, Qedem 39, Jerusalem.

Garstang J., 1935 : "Jericho: City and Necropolis, Fifth Report VII, General Report for 1935, The Early Bronze Age", *LAAA*, 22, p. 143-173.

Gerstenblith P., 1980 : "A Reassessment of the Beginning of the Middle Bronze Age in Syria-Palestine", *BASOR*, 237, p. 65-84.

Gibson J. C. L., 1982 : *Textbook of Syrian Semitic Inscriptions*, III, *Phoenician Inscriptions*, Clarendon Press, Oxford.

Glueck N., 1951 : *Explorations in Eastern Palestine IV, 2 : Pottery Notes and Plates*, Annual of the American Schools of Oriental Research 25-28, New Haven.

Goren Y., 2000 : "Petrographic Characteristics of Several Levantine Ceramic Materials", *Internet Archaeology*, 9.

Goren Y. & Zuckermann S., 2000 : "An Overview of the Typology, Provenance and Technology of the Early Bronze Age I 'Grey Burnished Ware' ", in Philip G. & Baird D., *Ceramics and Change in the Early Bronze Age of the Southern Levant*, Levantine Archaeology 2, Sheffield Academic Press, Sheffield, p. 165-182.

Gourichon L. & Helmer D., sous presse, *La faune de Mureybet*.

Goyon J.-C., 2000 : "La dent, l'ivoire et l'hippopotame dans l'Égypte des derniers siècles", in Beal J.-C. & Goyon, J.-C., *Des ivoires et des cornes dans les mondes anciens (Orient-Occident)*, Collection de l'Institut d'Archéologie et d'Histoire de l'Antiquité, Université Lumière-Lyon 2, Diffusion de Boccard, Paris, p. 147-158.

Greenberg R., 1996 : "The Early Bronze Age Levels", in Biran A. (ed.), *Dan I. A Chronicle of the Excavations, the Pottery Neolithic, the Early Bronze Age and the Middle Bronze Age Tombs*, Nelson Glueck School of Biblical Archaeology, Jerusalem, p. 83-160.

Greenberg R., 2000 : "Changes in Ceramic Production between Early Bronze Age II and III in Northern Israel, Based on the Pottery of Tel Hazor and Tel Dan", in Philip G. & Baird D., *Ceramics and Change in the Early Bronze Age of the Southern Levant*, Levantine Archaeology, 2, Sheffield Academic Press, Sheffield, p. 183-199.

Greenberg R., 2001 : "Early Bronze Age II-III Palestinian Cylinder Seal Impressions and the North Canaanite Metallic Ware Jar", in Wolff S. R. (ed.), *Studies in the Archaeology of Israel and Neighboring Lands in Memory of Douglas L. Esse*, Studies in Ancient Oriental Civilization 59, Chicago, Illinois, p. 189-197.

Greenberg R., 2002 : *Early Urbanizations in the Levant, A Regional Narrative*, Leicester University Press.

Greenberg R. & Porat N., 1996 : "A Third Millennium Levantine Pottery Production Center: Typology, Petrography and Provenance of the Metallic Ware of Northern Israel and Adjacent Regions", *BASOR*, 301, p. 5-24.

Griffiths D., 1999 : "The Role of Ceramic Fabric Analysis in the 1998 Sidon Excavations", *NMN*, 10, p. 49-55.

Griffiths D., 2000 : "The Role of Ceramic Fabric Analysis in the 1998 Sidon Excavations", *NMN*, 10, p. 49-55.

Guy P. L. O., 1938 : *Megiddo Tombs*, Oriental Institute Papers 33, Chicago.

Haas G.,1953 : "On the Occurrence of Hippopotamus in the Iron Age of the Coastal Area of Israel (Tell Qasileh)", *BASOR*, 132, p. 30-34.

Habermehl K. H., 1985 : *Altersbestimmung bei Wild- und Pelztieren*, Verlag Paul Parey, Berlin.

Halstead P. & Colins P., 2002 : "Sorting the Sheep from the Goats: Morphological Distinctions Between the Mandibles and Mandibular Teeth of Adult *Ovis* and *Capra*", *Journal of Archaeological Science*, 29, p. 545-553.

Hamdy O. & Reinach T., 1892 : *Une nécropole royale à Sidon*, Leroux, Paris.

Hanak V. & Mazak V., 1986 : *Encyclopédie des animaux*, Gründ, Paris (7e éd.).

Hanbury-Tenison J. W., 1986 : *The Late Chalcolithic to Early Bronze I Transition in Palestine and Transjordan*, BAR, Int. Series, 311, Oxford.

Harrison D. L., 1968 : *The Mammals of Arabia II*, Ernest Benn Limited, London.

Harrison D. L., 1972 : *The Mammals of Arabia III*, Ernest Benn Limited, London.

Harrison T. P., 2000 : "The Early Bronze III Ceramic Horizon for Highland Central Jordan", in Philip G. & Baird D., *Ceramics and Change in the Early Bronze Age of the Southern Levant*, Levantine Archaeology, 2, Sheffield Academic Press, Sheffield, p. 347-364.

Hellwing S., 1988/89 : "Faunal Remains from the Early Bronze and Late Bronze Ages at Tel Kinrot", *Tel Aviv*, 15-16, p. 212-220.

Hellwing S. & Gophna R., 1984 : "The Animal Remains from the Early and Middle Bronze Ages at Tel Aphek and Tel Dalit: a Comparative Study", *Tel Aviv*, 11, p. 48-59.

Helmer D., 1987 : "Fiches descriptives pour les relevés d'ensembles osseux animaux", in Desse J. & Desse-Buset N. (ed.), *Fiches d'ostéologie animale pour l'archéologie*, Série B, n°1, APDCA, Juan-les-Pins.

Helmer D., 2000 : "Discrimination des genres *Ovis* et *Capra* à l'aide des prémolaires inférieures 3 et 4 et interprétation des âges d'abattage : l'exemple de Dikili Tash (Grèce)", *Anthropozoologica*, 31/*Ibex : Journal of Moutain Ecology*, 5, p. 29-38.

Helms S., 1987 : "A question of Economic Control during the Proto-Historical Era of Palestine/Transjordan (c. 3500-2000 BC)", in Hadidi A. (ed.), *Studies in the History and Archaeology of Jordan III*, Department of Antiquities, Amman, Routledge & Kegan P., London, p. 41-51.

Helms S., 1989 : "An EB IV Pottery Repertoire at Amman, Jordan", *BASOR*, 273, p. 17-36.

Hennessy J. B., 1967 : *The Foreign Relations of Palestine during the Early Bronze Age*, Colt Archaeological Publications, London.

Hesse B. & Wapnish P., 2002 : "An Archaeozoological Perspective on the Cultural Use of Mammals in the Levant", in Collins B. J., *A History of the Animal World in the Ancient Near East*, E. J. Brill, Leiden, p. 457-491.

Holland T. A., 1977 : "Preliminary Report on Excavations at Tell es-Sweyhat, Syria, 1975", *Levant*, IX, p. 36-65.

Holland T. A., 1980 : "Incised Pottery from Tell Sweyhat, Syria and its Foreign Connections", in Margueron J.-Cl., *Le Moyen-Euphrate, zone de contacts et d'échanges, Actes du colloque de Strasbourg 10-12 mars 1977*, Université des sciences humaines de Strasbourg, E. J. Brill, Leiden, p. 127-157.

Hooijer D. A., 1961 : "The Fossil Vertebrates of Ksar 'Akil, a Palaeolithic Rock Shelter in the Lebanon", *Zoologische Verhandelingen*, 49, Leiden.

Horwitz L. K., 1985, "The En Shadud Faunal Remains", in Braun E., *En Shadud : Salvage Excavations at a Farming Community in the Jezreel Valley, Israel*, BAR, Int. Series, 249, Oxford, p. 168-177.

Horwitz L. K., 2000 : "Animal Remains from Tel Nov, Golan Heights", *Atiqot*, XXXIX, 121-134.

Horwitz L. K., 2001 : "The Mammalian Fauna", in Eisenberg E., Gopher A. & Greenberg R. (ed.), *Te'o, A Neolithic, Chalcolithic and Early Bronze Age Site in the Hula Valley*, Israel Antiquities Authority, Jerusalem, p. 171-194.

Horwitz L. K. & Tchernov E., 1990 : "Cultural and Environmental Implications of Hippopotames Bone Remains in Archaeological Contexts in the Levant", *BASOR*, 280, p. 67-76.

Horwitz L. K., Tchernov E., Ducos P., Becker C., von den Driesch A., Martin L. & Garrard A., 1999 : "Animal Domestication in the Southern Levant", *Paleorient*, 25/2, p. 63-80.

Horwitz L. K., Hellwing S. & Tchernov E., 1996 : "Patterns of Animal Exploitation at Early Bronze Age Tel Dalit", in Gophna R. (ed.), *Excavations at Tell Dalit, an Early Bronze Age Walled Town in Central Israel*, Ramot, Jerusalem, p. 193-216.

Horwitz L. K., Tchernov E., Mienis H. K., Hakker-Orion D. & Mayer Bar-Yosef D. E., 2002 : "The Archaeozoology of Three Early Bronze Age Sites in Nahal Besor, North-Western Negev", in Van Den Brink E. C. M. & Yannai E., *In Quest of Ancient Settlements and Landscapes. Archaeological Studies in Honour of Ram Gophna*, Ramot Publishing, Tel Aviv University, p. 107-133.

Hours F., 1979 : "L'industrie lithique de Saida-Dakerman", *Berytus*, 27, p. 57-76.

Huot J.-L., 1967 : "Typologie et chronologie relative de la céramique du Bronze Ancien à Tell el-Far'ah", *RB*, LXXIV, p. 517-554.

IBN MANGLÎ, *De la chasse, commerce des grands de ce monde avec les bêtes sauvages des déserts sans ondes*, translated in French by Viré F., 1984, Sindbad, Paris.

JESSUP H. H., 1910 : *Fifty-Three Years in Syria, II*, Fleming H. Revell Company, New York.

JIDÉJIAN N., 1971 : *Sidon through the Ages*, Dar el-Mashreq Publishers, Beirut.

JIDÉJIAN N., 1999 : "Greater Sidon and its 'Cities of the Dead' ", *NMN*, 10, p. 15-24.

JOFFE H., 1993 : *Settlement and Society in the Early Bronze Age I and II, Southern Levant*, Monographs in Mediterranean Archaeology 4, Sheffield.

JOFFE H., 2001 : "Early Bronze Age Seal Impressions from the Jezreel Valley and the Problem of Sealing in the Southern Levant", in Wolff S. R. (ed.), *Studies in the Archaeology of Israel and Neighboring Lands in Memory of Douglas L. Esse*, Studies in Ancient Oriental Civilization 59, Chicago, Illinois, p. 355-375.

KAPLAN J. & RITTER-KAPLAN H., 1993 : "Jaffa", in Stern E., *The New Encyclopedia of Archaeological Excavations in the Holy Land* 2, Jerusalem/New York, p. 655-659.

KASPAREK M., 1995 : "The Nesting of Marine Turtles on the Coast of Syria", *Zoology of the Middle East*, 11, p. 51-62.

KEEL O., 1992 : *Das Recht der Bilder gesehen zu werden*, Orbis Biblicus et Orientalis 122, Göttingen.

KEMPINSKI A., 1983 : "Early Bronze Age Urbanization of Palestine: Some Topics in a Debate", *IEJ*, 33, p. 235-241.

KENYON K. M., 1954 : "Excavations at Jericho, 1954", *PEQ*, p. 45-63.

KENYON K. M., 1956 : "Tombs of the Intermediate Early Bronze-Middle Bronze Age at Tell Ajjul ", *ADAJ*, III, p. 41-55.

KENYON K. M., 1960 : *Excavations at Jericho I*, British School of Archaeology in Jerusalem, London.

KENYON K. M., 1965 : *Excavations at Jericho II*, British School of Archaeology in Jerusalem, London.

KENYON K. M. & HOLLAND T. A., 1982 : *Excavations at Jericho IV, the Pottery Type series and Other Finds*, London, British School of Archaeology in Jerusalem, London.

KIRKBRIDE D., 1973 : "Umm Dabaghiyah 1972: A Second Preliminary Report", *Iraq*, XXV, p. 1-7.

KOCHAVI M. & BECK P., 1976 : *Aphek-Antipatris 1972-1973*, Tel Aviv University, Institute of Archaeology, Tel Aviv.

KOCHAVI M., BECK P. & YADIN E., 2000 : *Aphek-Antipatris I, Excavation of Areas A and B. The 1972-1976 Seasons*, Tel Aviv University, Sonia and Marco Nadler Institute of Archaeology, Monograph series, n° 19, Tel Aviv.

KOEPPEL R., 1940 : *Teleilat Ghassul II*, Institut Biblique Pontifical, Rome.

LAPP N. L., 1989 : "Cylinder Seals and Impressions of the Third Millennium BC from the Dead Sea Plain", *BASOR*, 273, p. 1-15.

LEONARD A., 1983 : "The Proto-Urban/Early Bronze I Utilization of the Kataret es-Samra Plateau", *BASOR*, 251, p. 40-42.

LEPIKSAAR J., 1990 : "Die Tierreste von Tell Es-Salidhiyeh in Südsyrien", in Schibler J., Sedlmeier J. & Spycher H., *Festschrift für Hans R. Stampfli. Beiträge zur Archäozoologie, Archäologie, Anthropologie, Geologie und Paläontologie*, Helbling et Lichtenhahn, Basel, p. 101-105.

LERNAU H., 1978 : "Faunal Remains", in Amiran R. (ed.), *Early Arad, The Chalcolitic Settlement and Early Bronze City*, The Israel Exploration Society, Jerusalem, p. 83-113.

LEROUX G., VÉRON A. & CH. MORHANGE, 2003 : "Geochemical Evidences of Early Anthropogenic Activity in Harbour Sediments from Sidon", AHL, 18, p. 115-119.

LOUD G., 1948 : *Megiddo II. Seasons of 1935-1939*, Oriental Institute Publications 62, Chicago.

MACRIDY Th. C., 1904 : *Le temple d'Echmoun à Sidon*, librairie Victor Lecoffre, Paris.

MAHER E. F., 2002 : "Food for Gods: Sacred Animal Use at Tel Miqne-Ekron", *Albright News*, 7, p. 11-16.

MALLON A., KOEPPEL R. & NEUVILLE R., 1934 : *Teleilat Ghassul I*, Scripta Pontificii, Rome.

MALLOWAN M. E. L., 1947 : "Excavations at Brak and Chagar Bazar", *Iraq*, IX, p. 1-87.

MANNING S. W., 1995 : *The Absolute Chronology of the Aegean Early Bronze Age, Archaeology, Radiocarbon and History*, Monographs in Mediterranean Archaeology 1, Sheffield Academic Press, Sheffield.

MARCHETTI N. & NIGRO L., 1997 : "Cultic Activities in the Sacred Area of Ishtar at Ebla During the Old Syrian Period: the *Favissae* F. 5327 and F. 5238", *JCS*, 49, p. 1-44.

MARCHETTI N. & NIGRO L., 1999 : "The *Favissa* F. 5238 in the Sacred Area of Ishtar and the Transition from the Middle Bronze I to the Middle Bronze II at Ebla", in Van Lerberghe K. & Voet G., *Languages and Cultures in Contact, at the Crossroads of Civilizations in the Syro-Mesopotamian Realm*, Proceedings of the 42th RAI, Orientalia Lovaniensia Analecta 96, Leuven, p. 245-287.

MATTHERS J., 1978 : "Tell Rifa'at 1977, Preliminary Report on an Archaeological Survey", *Iraq*, 40, p. 119-162.

MATTHERS J., 1981 : *The River Qoueiq, Northern Syria, and its Catchment, Studies Arising from the Tell Rifa'at Survey 1977-79*, BAR, Int. Series, Oxford.

MATTHIAE P., 1977 : *Ebla, an Empire Rediscovered*, Hodder and Stoughton, London.

MATTHIAE P., 1982 : "The mature Early Syrian Culture of Ebla and the Development of Early Bronze Civilization of Jordan", in Hadidi A. (ed.), *Studies in the History and Archaeology of Jordan I*, Department of Antiquities, Amman, p. 77-91.

MATTHEWS D. M., 1997 : *The Early Glyptic of Tell Brak*, Orbis Biblicus et Orientalis Series Archaeological 15, University Press, Fribourg, Ruprecht, Göttingen.

MATTHIAS T. & PARR P. J., 1989 : "The Early Phases at Tell Nebi Mend: A Preliminary Account", *Levant*, 21, p. 13-29.

MAZZAWI R., 1961 : "American Schools in Sidon", *Middle East Forum*, February, n° 37, 2, p. 18-19.

MAZZONI S., 1985a : "Elements of the Ceramic Culture of Early Syrian Ebla in Comparison with Syro-Palestinian EB IV", *BASOR*, 257, p. 1-18.

MAZZONI S., 1985b : "Frontières céramiques et le Haut Euphrate au Bronze Ancien IV", in *MARI, Annales de Recherches Interdisciplinaires*, 4, Éditions Recherche sur les Civilisations, p. 561-577.

MAZZONI S., 1987 : "The Diffusion of the Palestinian Combed Jars", in *Studies in the History and Archaeology of Palestine, Proceedings of the First International Symposium on Palestine Antiquities*, II, Aleppo University Press, Aleppo.

MAZZONI S., 2002 : "The Ancient Bronze Age Pottery Tradition in Northwestern Central Syria", in AL-MAQDISSI M., MATOÏAN V. & NICOLLE Ch., *Céramique de l'âge du Bronze en Syrie*, I, *La Syrie du sud et la vallée de l'Oronte*, Institut Français d'Archéologie du Proche-Orient, BAH 161, Beyrouth, p. 69-96.

MEURDRAC M. & ALBANÈSE L., 1938 : "À travers les nécropoles gréco-romaines de Sidon", *BMB*, II, p. 73-98.

MIROSCHEDJI P. DE, 1971 : "L'époque pré-urbaine en Palestine", *Cahiers de la revue biblique*, 13, Paris.

MIROSCHEDJI P. DE, 1988 : *Yarmouth 1 Rapport sur les trois premières campagnes de fouilles à Tel Yarmouth (Israël) (1980-1982)*, Éditions Recherche sur les Civilisations, Paris.

MIROSCHEDJI P. DE, 1989a : "Le processus d'urbanisation en Palestine au Bronze Ancien: Chronologie et rythmes", in Miroschedji P. de, *L'urbanisation de la Palestine à l'âge du Bronze ancien, bilan et perspectives des recherches actuelles, Actes du Colloque d'Emmaüs (20-24 octobre 1986)*, I, II, BAR, Int. Series, Oxford, p. 63-79.

MIROSCHEDJI P. DE, 1989b : "Introduction", in Miroschedji P. de, *L'urbanisation de la Palestine à l'âge du Bronze ancien, bilan et perspectives des recherches actuelles, Actes du colloque d'Emmaüs (20-24 octobre 1986), I, II*, BAR, Int. Series, Oxford, p. 1-4.

MIROSCHEDJI P. DE, 1997 : "La glyptique palestinienne du Bronze Ancien", in *De Chypre à la Bactriane. Les sceaux du Proche-Orient ancien*, Actes du colloque international organisé au musée du Louvre par le service culturel le 18 mars 1995, Paris, La Documentation française, p. 189-227.

MIROSCHEDJI P. DE, 2000 : "An Early Bronze Age III Pottery Sequence for Southern Israel", in Philip G. & Baird D., *Ceramics and Change in the Early Bronze Age of the Southern Levant,* Levantine Archaeology, 2, Sheffield Academic Press, Sheffield, p. 315-345.

MOFIDI N. B., 1999 : *Untersuchungen zu den Bestattungssitten in Mesopotamien in der ersten Hälfte des ersten Jahrtausends v. Chr.*, Baghdader Forschungen 23, Mainz.

MORHANGE Ch., DE BEAULIEU J.-L., BOURCIER M., BRUZZI C., CARBONEL P., OBERLIN Ch., FROST H. & DOUMET-SERHAL C., 1998-1999 : "Étude des paléoenvironnements du port de Sidon depuis 4000 ans. Résultats préliminaires de la mission de carottages du British Museum de 1998", *BAAL*, 3, p. 225-243.

MORHANGE Ch. DUBUQUOY O. PRUNET N. DE BEAULIEU J.-L. BOURCIER M. CARBONEL P. OBERLIN Ch. & FROST H., 1999 : "Nouvelles données paléo-environnementales sur le port antique de Sidon. Proposition de datation", *NMN*, 10, p. 42-48.

MORHANGE Ch., ESPIC K., DOUMET-SERHAL C., BOURCIER M. & CARBONEL P., 2003 : "Sidon's Ancient Harbours: A Tentative Summary", *AHL*, 18, p. 71-81.

NEGBI O., 1972 : "Contacts Between Byblos and Cyprus at the End of the Third Millennium B. C.", *Levant*, IV, p. 98-110.

NICOLLE Ch., 1997 : "Un usage économique inédit dans la production et la diffusion des produits agricoles: les empreintes de sceaux sur les jarres levantines de l'âge du Bronze", in Gyselen R., avec la collaboration de Amiet P., *Sceaux d'Orient et leur emploi*, Res Orientales X, Bures-sur-Yvette, p. 109-131.

NIGRO L., 2000 : "Coordinating the MB I Pottery Horizon of Syria and Palestine", in Matthiae P. *et al., Proceedings of the First International Congress on the Archaeology of the Ancient Near East, Rome, May 18th-23rd 1998*, Dipartimento di scienze storiche, archeologiche e antropologiche dell'antichità, Università degli studi di Roma "La Sapienza", Rome, p. 1187-1210.

OLDENBURG E., 1991 : *Sukas IX, The Chalcolithic and Early Bronze Age Periods*, Publications of the Carlsberg Expedition to Phoenicia 11, Copenhagen.

OTTE M., PELEGRIN J. & COLLIN F., 1990 : "Towards an Integrated Approach: The Use of the Canaanean Blades", *Aun*, 14, Uppsala, p. 135-145.

PALUMBO G., 1991 : *The Early Bronze Age IV in the Southern Levant, Settlement Patterns, Economy, and Material Culture of a "Dark Age"*, Contributi e Materiali di Archeologia Orientale II, Università degli Studi di Roma "La Sapienza", Rome.

PALUMBO G., 2001 : "The Early Bronze Age IV", in MacDonald B., Adams R. & Bienkowski P., *The Archaeology of Jordan*, Levantine Archaeology 1, Sheffield Academic Press, Sheffield, p. 233-269.

PARROT A., 1956 : *Mission archéologique de Mari, I, Le temple d'Ishtar*, Paris.

PAYNE S., 1985 : "Morphological Distinctions between the Mandibular Teeth of Young Sheep, *Ovis*, and Goats, *Capra*", *Journal of Archaeological Science*, 12, p. 139-147.

PAYNE S. & BULL G., 1988 : "Components of Variation in Measurements of Pig Bones and Teeth, and the Use of Measurements to Distinguish Wild from Domestic Pig Remains", *Archaeozoologia*, II/1-2, p. 27-66.

PETRIE W. M. F., 1902 : *Abydos, part I*, The Egypt Exploration Fund, London.

PETRIE W. M. F., 1903 : *Abydos, part II*, The Egypt Exploration Fund, London.

PFEIFFER T., 1999 : "Die Stellung von Dama *(Cervidae, Mammalia)* im System plesiometacarpaler Hirsche des Pleistozäns", *Courier Forschungsinstitut Senckenberg*, 211, Frankfurt a. M.

PHILIP G., 2001 : "The Early Bronze I-III Ages", in Mac Donald B., Adams R. & Bienkowski P., *The Archaeology of Jordan*, Levantine Archaeology, 1, Sheffield, p. 163-232.

PHILIP G., 2001a : "The Early Bronze Age IV", in Mac Donald B., Adams R. & Bienkowski P., *The Archaeology of Jordan*, Levantine Archaeology, 1, Sheffield, p. 233-269.

PHILIP G. & BAIRD D., 2000 : "Early Bronze Age Ceramics in the Southern Levant: an Overview", in Philip G. & Baird D. (ed.), *Ceramics and Change in the Early Bronze Age of the Southern Levant,* Levantine Archaeology, 2, Sheffield Academic Press, Sheffield, p. 3-29.

POIDEBARD A. & LAUFFRAY J., 1951 : *Sidon: Aménagements antiques du port de Saida*, Beirut.

PORADA E., 1950 : "A Leonine Figure of the Protoliterate Period of Mesopotamia", *Journal of the American Oriental Society*, 70, p. 223-226.

POULAIN JOSIEN T., 1978 : "Étude de la faune, de quelques restes humains et de coquillages provenant de Ras Shamra (sondages 1955 à 1960)" , in Schaeffer C. F. A., *Ugaritica VII*, Mission archéologique de Ras Shamra, P. Geuthner & E. J. Brill, Paris/Leiden , p. 161-180.

PRAG K., 1974 : "The Intermediate Early Bronze-Middle Bronze Age: An Interpretation of the Evidence from Transjordan, Syria and Lebanon", *Levant*, VI, p. 69-116.

PRAG K., 1986 : "Byblos and Egypt in the Fourth Millennium BC", *Levant,* XVIII, p. 59-74.

PRUMMEL W. & FRISCH J., 1986 : "A Guide for the distinction of Species, Sex and Body Side in Bones of Sheep and Goat", *Journal of Archaeological Science,* 13, p. 567-577.

RENAN E., 1864 : *Mission de Phénicie*, Imprimerie Impériale, Paris.

REY G., 1871 : *Étude sur l'architecture militaire des Croisés en Syrie et dans l'île de Chypre*, Paris.

RICHARD S., 1980 : "Towards a Consensus of Opinion on the End of the Early Bronze Age in Palestine-Transjordan", *BASOR*, 237, p. 5-34.

RICHARD S., 1987 : "The Early Bronze Age, the Rise and Collapse of Urbanism", *Biblical Archaeologist*, 50, p. 22-43.

RICHARD S., 2000 : "Chronology versus Regionalism in the Early Bronze IV: An Assemblage of Whole and Restored Vessels from the Public Building at Khirbet Iskander", in Stager L. E., Greene J. A. & Coogan M. D., *The Archaeology of Jordan and Beyond, Essays in Honor of James A. Sauer*, Studies in the Archaeology and History of the Levant, Winona Lake, p. 399-417.

RIIS P. J. & THRANE H., 1974 : *Sukas III, The Neolithic Periods*, Det Kongelige Danske Videnskabernes Selskab, Copenhague.

RIZKANA I. & SEEHER J., 1995 : "Basil Hennessy and the Nicholson Museum", in Bourke S. & Descoeudres J.-P. (ed.), *Studies in Honour of J. Basil Hennessy,* Mediterranean Archaeology Supplement 3, Sydney, p. 61-80.

ROSEN S. A., 1983 : "The Canaanean Blade and the Early Bronze Age", *IEJ*, 33, p. 15-29.

ROSEN S. A., 1989 : "The Analysis of Early Bronze Age Chipped Stone Industries: A Summary Statement", in Miroschedji P. de, *L'urbanisation de la Palestine à l'âge du Bronze ancien, bilan et perspectives des recherches actuelles, Actes du Colloque d'Emmaüs (20-24 octobre 1986)*, I, II, BAR, Int. Series, Oxford, p. 199-222.

ROSEN S. A., 1988 : "Notes on the Flint Implements from Tel Yarmuth, 1980-1982", in Miroschedji P. de, *Yarmouth 1. Rapport sur les trois premières campagnes de fouilles à Tel Yarmouth (Israël) (1980-1982)*, Éditions Recherche sur les Civilisations, Paris, p. 135-142.

ROSEN S. A., 1997 : *Lithics after the Stone Age: A Handbook of Stone Tools from the Levant,* Walnut Creek, Altamira Press, California.

ROUX G., 1980 : "Le chapiteau à protomés de taureaux découvert à Salamine de Chypre", in Yon M. (ed.), *Salamine de Chypre histoire et archéologie, état des recherches*, Colloques Internationaux du Centre National de la Recherche Scientifique, Lyon 13-17 mars 1978, p. 257-274.

SADEH M., 2000 : "Animal Bones from Qiryat'Ata, Area L", *Tel Aviv,* 27, p. 57-60.

SAGHIEH M., 1983 : *Byblos in the Third Millennium BC*, Aris & Philips, Warminster.

SAÏDAH R., 1967 : "Chronique", *BMB*, XX, 155-180.

SAÏDAH R., 1969 : "Archaeology in the Lebanon 1968-1969", *Berytus*, XVIII, p. 119-142.

SAÏDAH R., 1977 : "Une tombe de l'âge du Fer à Tambourit (région de Sidon)", *Berytus*, p. 135-146.

SAÏDAH R., 1979 : "Fouilles de Sidon-Dakerman: l'agglomération chalcolithique", *Berytus*, XXVII, p. 29-55.

SAÏDAH R., 2004: *Sidon et la Phénicie Méridionale au Bronze Récent, À propos des tombes de Dakerman,* Institut Français du Proche-Orient, BAH 170, Beyrouth.

SASS B., 2000 : "The Small Finds" , in Finkelstein I., Ussishkin D. & Halpern B., *Megiddo III, The 1992-1996 Seasons*, Tel Aviv University, Sonia and Marco Nadler Institute of Archaeology, Jerusalem, p. 429-462.

SCHAEFFER C. F. A., 1949 : *Ugaritica II, Mission de Ras Shamra*, Institut français d'archéologie de Beyrouth, BAH 47, Paris.

SCHAEFFER C. F. A., 1962 : *Ugaritica IV*, Institut français d'archéologie de Beyrouth, BAH 74, Paris.

SCHAUB R. T., 2000 : "Terminology and Typology of Carinated Vessels of the Early Bronze Age I-II of Palestine", in Stager L. E., Greene J. A. & Coogan M. D., *The Archaeology of Jordan and Beyond, Essays in Honor of James A. Sauer*, Studies in the Archaeology and History of the Levant, Winona Lake, p. 444-464.

SCHMANDT-BESSERAT D., 1997 : "Animal Symbols at 'Ain Ghazal' ", *Expedition*, 39, n° 1, p. 48-57.

SCHWARTZ G. M. & FALCONER S. E., 1994 : *Archaeological Views from the Countryside, Village Communities in Early Complex Societies*, Smithsonian Institution Press, Washington/London.

SILVER I. A., 1969 : "The Ageing of Domestic Animals", in Brothwell D. & Higgs R. E. S. (ed.), *Science in Archaeology*, Thames and Hudson, London, p. 283-302.

SPEISER E. A., 1935 : *Excavations at Tepe Gawra*, I, American School of Oriental Research in Baghdad, Philadelphia.

Stager L. E., 1992 : "The Periodization of Palestine from Neolithic Through Early Bronze Times", in Ehrich R. W. (ed.), *Chronologies in Old World Archaeology*, University of Chicago Press, Chicago, p. 22-41.

Starr R. F., 1937 : *Nuzi II*, plates and plans, Baltimore.

Starr R. F., 1939 : *Nuzi I*, Text, Baltimore.

Stern A., 1984 : *Excavations at Tell Mevorakh (1973-1976),* Qedem 18, The Hebrew University of Jerusalem, Jerusalem.

Stern A., 1993 : *The New Encyclopedia of Archaeological Excavations in the Holy Land 2,* Jerusalem, Israel Exploration Society & Carta, New York.

Stucky R. A., 1998 : "Le sanctuaire d'Echmoun à Sidon", *NMN*, 7, p. 3-13.

Stucky R. A., 2004 : "Éléments de construction en marbre à décor animalier de Sidon et la culture phénicienne aux époques perse et hellénistique ancienne", in Doumet-Serhal C. (ed.), in collaboration with Resek A. & Rabate A., *Decade, A Decade of Archaeology and History in the Lebanon*, The Lebanese British Friends of the National Museum, Beirut, p. 214-223.

Tadmor M., 1978 : "A Cult Cave of the Middle Bronze Age I near Qadesh", *IEJ*, 28, p. 1-30.

Thalmann J.-P., 1991 : "L'âge du Bronze à Tell Arqa, bilan et perspectives (1981-1991)", *Berytus*, XXXIX, p. 28-32.

Thalmann J.-P., 1993 : *L'âge du Bronze à Tell Arqa*, Thèse de Doctorat de l'Université de Paris I, Paris.

Thalmann J.-P., 2000 : "Tell Arqa", *BAAL*, 4, p. 5-74.

Tubb J., 1983 : "The MB II A Period in Palestine: Its Relationship with Syria and its Origin", *Levant*, XV, p. 49-62.

Tubb J., 1988 : "Tell es Sa'idiyeh: Preliminary Report on the First Three Seasons of Renewed Excavations", *Levant*, XX, p. 23-88.

Tufnell O., 1958 : *Lachish IV. The Bronze Age*, Oxford University Press, London.

Uerpmann H. P., 1987 : *The Ancient Distribution of Ungulate Mammals in the Middle East*, Dr. Ludwig Reichert Verlag, Wiesbaden.

Vandier J., 1964 : *Manuel d'archéologie égyptienne,* Tome IV, *Bas-reliefs et peintures, scènes de la vie quotidienne*, A. et J. Picard, Paris.

Van den Brink E. C. M. & Yannai E., 2002 : *In Quest of Ancient Settlements and Landscapes*, *Archaeological Studies in Honour of Ram Gophna*, Ramot Publishing, Tel Aviv University.

Van Loon M., 1979 : "1974 and 1975 Preliminary Results of the Excavations at Selenkahiye, near Meskene, Syria", in Freedman D. N., *Archaeological Reports from the Tabqa Dam Project-Euphrates Valley, Syria*, Annual of the American Schools of Oriental Research 44, Cambridge, MA., p. 97-112.

Vaux R. de & Steve A. M., 1947 : "La première campagne de fouilles à tell el-Far'ah, près Naplouse", *RB*, 54, p. 394-433.

Vaux R. de, 1949 : "La deuxième campagne de fouilles à Tell el-Far'ah près Naplouse", *RB*, 56, p. 102-138.

Vaux R de. & Steve A. M., 1951, "La troisième campagne de fouilles à tell el-Far'ah, près Naplouse", *RB*, 58, p. 393-430.

Vaux R. de & Steve A. M., 1952 : "La quatrième campagne de fouilles à Tell el-Farah près Naplouse", *RB*, 59, p. 551-583.

Vaux R. de, 1955 : "Les fouilles de Tell el-Far'ah près Naplouse, cinquième campagne", *RB*, 62, p. 541-589.

Vaux R. de, 1961 : "Les fouilles de Tell el-Far'ah, rapport préliminaire sur les 7ème, 8ème, 9ème campagnes, 1958-1960", *RB*, 68, p. 557-592.

Vieweger D., 1997 : "An Early Bronze Age Handle with Cylinder Seal Impression from Dayr Qiqub, Jordan", *Levant*, XXIX, p. 147-152.

Vila E., 1993 : "À propos de vestiges de chevilles osseuses d'aurochs retrouvées à Tell Chuera (Bronze ancien, Syrie) : un exemple possible de chasse à vocation première non alimentaire", in *XIIIe Rencontres Internationales d'Archéologie et d'Histoire d'Antibes*, APDCA, Juan-les-Pins, p. 279-292.

Vila E., 1994 : *Recherches sur l'exploitation de la faune en Mésopotamie du Nord à la période Uruk et au Bronze Ancien*, Thèse de Doctorat de l'Université de Paris I, Paris.

Vila E., 1995 : "Analyse de la faune des secteurs nord et sud du Steinbau I (Tell Chuera, Syrie, IIIe millénaire av. J.-C.)", in Orthmann W. (ed.), *Ausgrabungen in Tell Chuera in Nordost-Syrien I. Vorbericht über die Grabungskampagnen 1986 bis 1992*, Saarbrücker Druckerei & Verlag, Saarbrücken, p. 267-279.

Vila E., 1998 : *L'exploitation des animaux en Mésopotamie aux IVe et IIIe millénaires avant J.-C.*, Monographies du Centre de Recherches Archéologiques 21, CNRS Éditions, Paris.

Vila E., 2002 : "L'évolution de la taille du mouton dans le nord de la Mésopotamie : les faits et leurs causes", in Bodson L. (ed.), *D'os, d'image et de mots. Contribution à la réflexion sur les sources de l'histoire des connaissances zoologiques*, Colloques d'histoire des connaissances zoologiques, 13, Université de Liège, p. 47-79.

Vila E., 2002a : "Les vestiges de chevilles osseuses de gazelles du secteur F de Tell Chuera (Syrie, Bronze ancien)", in Buitenhuis H., Choyke A. M., Mashkour M. & Alshiyab A. H. (ed.), *Archaeozoology of the Near East V*, ARC publications 62, Gröningen, p. 241-250.

Vila E., 2004 : "Apport de l'étude de la faune à la connaissance des modes de vie", in Braemer F., Echallier J.-C. & Ararakji A., *Khirbet al Umbashi, Villages et campements de pasteurs dans le "désert noir" (Syrie) à l'âge du Bronze*, Institut Francais du Proche Orient, BAH 171, Beyrouth, p. 271-288.

Vila E., sous presse : "L'économie alimentaire carnée et le monde animal à Ras Shamra : analyse préliminaire des restes osseux de mammifères", in Calvet Y. & Yon M. (dir.), Actes de la table ronde Ras Shamra-Ougarit 30-11/ 01-12-2001, TMO, Lyon.

Vila E. & Dalix A.-S., 2004 : "Alimentation et idéologie : la place du sanglier et du porc à l'Âge du Bronze sur la côte Levantine", in *Domestications animales, Dimensions sociales et symboliques. Hommage à Jacques Cauvin, Anthropozoologica*, 39, p. 219-236.

WAPNISH P., 1997 : "Lions", in *The Oxford Encyclopedia of Archaeology in the Near East*, 3, Oxford University Press, Oxford, p. 361-362.

WAPNISH P. & HESSE B., 1991 : "Faunal Remains from Tel Dan: Perspectives on Animal Production at a Village, Urban and Rituel Center", *Archaeozoologia*, IV/2, p. 2-86.

WAPNISH P. & HESSE B., 2000 : "Mammal Remains from the Early Bronze Sacred Compound", in Finkelstein I., Ussishkin D. & Halpern B. (ed.), *Megiddo III, The 1992-1996 Seasons*, Emery and Claire Yass Publications in Archaeology, Jerusalem, p. 429-462.

WIENCKE M. H., 1970 : "Banded Pithoi of Lerna III", *Hesperia*, XXXIX, p. 94-109.

WILKENS B., 2000 : "Archaeozoology Westwards : the Fauna of Tell Afis (Syria)", in *Les animaux et les hommes dans le monde syro-mésopotamien aux époques historiques*, *Topoi Orient-Occident*, suppl. 2, Lyon, p. 5-14.

WILSON Ch. W., 1800 : *Picturesque Palestine Sinai and Egypt III*, J. S. Virtue and Co ltd., London.

WILSON V., 1980 : "The Tubbs-Munro Excavations at Salamis 1890", in Yon M., *Salamine de Chypre histoire et archéologie, état des recherches*, Colloques Internationaux du Centre National de la Recherche Scientifique, Lyon 13-17 mars, 1978, p. 60-70.

WRIGHT G. E., 1937 *: The Pottery of Palestine from the Earliest Times to the End of the Early Bronze Age*, American Schools of Oriental Research, Publications of the Jerusalem School, New Haven.

YAKAR J., 1989 : "The so-Called Anatolian Elements in the Late Calcolithic and Early Bronze Age Cultures of Palestine: a Question of Ethnocultural Origins", in Miroschedji P. de, *L'urbanisation de la Palestine à l'âge du Bronze ancien, bilan et perspectives des recherches actuelles, Actes du colloque d'Emmaüs (20-24 octobre 1986)*, I, II, BAR, Int. Series, Oxford, p. 341-354.

YON M. et CAUBET A., 1993 : "Arouad et Amrit VIII^{e} - I^{er} siècles av. J.-C. documents", *Transeuphratène*, 6, p. 50 - 52.

ZEDER M. A., 1996 : "The Role of Pigs in Near Eastern Subsistence: a View from the Southern Levant", in Seger J. D. (ed.), *Retrieving the Past, Essays on Archaeological Research and Methodology in Honor of G. W. Van Beek*, Cobb Institute of Archaeology, Mississippi State University, p. 297-312.

LIST OF ABBREVIATIONS

ADAJ	*Annual of the Department of Antiquities of Jordan*. Amman.
AHL	*Archaeology and History in the Lebanon*. Oxford/ Beirut.
BAAL	*Bulletin d'Archéologie et d'Architecture Libanaises*. Beirut.
BASOR	*Bulletin of the American Schools of Oriental Research*. New Haven.
BMB	*Bulletin du Musée de Beyrouth*. Beirut.
IEJ	*Israel Exploration Journal*. Jerusalem.
JCS	*Journal of Cuneiform Studies*. New Haven.
LAAA	*Liverpool Annals of Archaeology and Anthropology*. Liverpool.
NMN	*National Museum News*. Oxford/Beirut.
PEQ	*Palestine Exploration Quarterly*. London.
RB	*Revue Biblique*. Paris.
Seb	*Studi Eblaiti*. Rome.
ZDPV	*Zeitschrift des Deutschen Palästina Vereins*. Wiesbaden.

تؤكد المادة الآثارية على الصفة المحلية والإيقاع الخاص لمنطقة جنوب لبنان. ويكمن الإنطباع العام في تمفصلٍ مستمر وغير منقطع في سير التمدن. تشهد الاكتشافات عموماً في صيدون على تقارب واتصالات بشكل خاص مع فلسطين، وبشكل أقل مع سورية. أما التأثير السوري فيتضح خلال عصر البرونز القديم III في الصناعة المحلية للجرار دون رقبة من نمط الفم المثقوب hole-mouth وببعض تفاصيل التمشيط. ونجد التأثير ذاته في السوية الأولى من عصر البرونز الوسيط.

عصر البرونز. ولكن العثور على أدوات حجرية وأحياناً بكميات كبيرة في مواقع من عصر البرونز في الشرق الأدنى وضع مخطط التطور هذا موضع تساؤل. وقد جددت الدراسات التحليلية المختلفة عدة مواضيع منها التقصيب الكنعاني أو النصال الكنعانية.

وتسمح هذه الدراسة الأولية بالكشف عن عدة أمور. أولها حضور بعض العناصر المستمرة عبر السياق كله. فعلى الرغم من غياب البنى في السوية ٢ المكونة من طبقة رملية سماكتها ٢٠ سم، إلا أن وجود الأدوات الحجرية، ولو كانت أقل عدداً مما حوته السوية ١، توحي بأن الموقع لم يهجر تماماً. وعلى عكس ما لوحظ في دكرمان، وهو موقع مجاور يعود إلى آخر العصر الكالكوليثي، فالمواد الأولية تبدو متنوعة إلى حد ما على الرغم من الوجود الغالب للصوان السينوماني والنوموليتي. لم يلاحظ أي تمييز تصنيعي على الرغم من كون الأدوات المنزلية قد صنعت بغالبيتها من مادة خشنة الذرات (بشكل خاص المكاشط اللبية core-scrapers) بينما تبدو النصال الخام أو المشذبة مصنوعة من صوان ذو ذرات ناعمة. ولاتكفي الفضلات المميزة في حال وجودها (ألواح، شظايا سن وفضلات أخرى) لتأكيد حصول تقصيب نصال على الموقع. لادليل إذن على وجود تخصص موجه نحو إنتاج نصال كما هو الحال في مواقع أخرى (دكرمان مثلاً). ويدل وجود النصال الخام أو المحولة إلى مناجل على ممارسة السكان لنشاطات زراعية. أما فيما يتعلق بإنتاج تلك النصال فقد لعب الاستيراد أو التبادل التجاري دوراً هاماً إذ من المعترف به حالياً أن النصال الكنعانية مثلاً قد شكلت مادة مبادلات تجارية خلال عصر البرونز الوسيط.

من جهة أخرى تشكل الأدوات من الطراز المنزلي. من مسننات ومكاشط، صنفاً هاماً طوال التعاقب الطبقي على الرغم من غياب بعض النماذج المميزة لعصر البرونز القديم مثل المكاشط مروحية الشكل. وقد استعمل نحاتو صيدون أنواعاً مختلفة من المواد الأولية السيليسية. كان يفضل بشكل عام حجر الصوان. وقد تم جمع أنواعٍ عديدة من التراكيب والألوان ولكن يطغي عليها نموذجان. أحدهما الصوان البني/لون الشوكولا ذو الذرات الناعمة مع قشرة طباشيرية على الأغلب كريستاسية (سينومانية ٩٩). ويتلوه الصوان النوموليتي (بيج أو بني) من الإيوسين أيضا، ذو قشرة طباشيرية ، ولكن هناك بعض القطع لها بقايا قشرية متآكلة إلى حد ما (١٣٪). ويؤلف الكريتاسي والأيوسيني جزءاً من الطبيعة الصخرية لصيدا ؛ أما الغطاء القشري الطباشيري فيشكل بشكل عام مؤشراً لمصدر طبيعي. تسمح هذه العناصر بافتراض تزود محلي في مآو مجاورة. وقد تم اقتلاع بعض الشظايا القشرية من حصى صوانية بيج أو ذات شكل كلسي. هناك أنواع أخرى من الصوان ممثلة بنسب مئوية أقل أهمية. فهناك صوان بيج ذو شكل كلسي (نوع من بويضات كلسية متصونة) وصوان رمادي ناعم الذرات وثلاث مصنوعات يدوية منحوتة من صوان بني فاتح (حيث نصلة مظهرة) وثلاث شظايا منحوتة في صوان لونه بيج/ بني مبقع ناعم الذرات. وأخيراً فهناك حوالي خمسة عشر قطعة منحوتة من حجر كلسي كثيف ومن حجر كلسي نوموليتي. لا نملك أية فكرة عن مصدر هذه المواد نظراً إلى أن غالبيتها العظمى قد فقدت قشرتها. تبقى هناك نقطة أخيرة تستحق الذكر وتخص حوالي عشرين من المصنوعات اليدوية التي تحمل آثار حريق (لون محمر أو أسود وأحياناً مع ندبات حرارية). ونذكر أيضاً وجود قطعة من السبج .

على الرغم من كونها أولية، فإن مجموعة النتائج حتى الآن تسمح بافتراض منشآت من النمط المنزلي حيث مارس السكان الزراعة. ويحول غياب صناعات معاصرة لها في لبنان دون إقامة مقارنات. من جهة أخرى، تبقى مجموعات اللقى صغيرة والنتائج لا تكفي للبحث عن مشابهات في مواقع أخرى معاصرة في منطقة الشرق الأدنى. ومن الممكن أن يقدم استمرار عمليات التنقيب في "موقع الكلية" عناصر جديدة ويوسع منظورنا لأنظمة إنتاج الصناعات الحجرية خلال عصر البرونز القديم في لبنان.

أما استثمار الحيوانات في صيدون خلال عصر البرونز القديم فكان حسب إيمانويل فيلا مبتكراً جداً بالنسبة للمواقع الساحلية المعاصرة في الشرق الأدنى. فسكان الموقع مربو خراف وماعز وبقر وخنازير كانوا صيادين نشطين.
وقد تعرضوا لطرائد كبيرة كالأيل، وهو نوع من البقريات الوحشية، وعلى الأغلب الأوروكس (نوع آخر من البقر الوحشي) والخنزير البري وفرس النهر، كما صادوا الأسماك والزلاحف البحرية. وتدل آثار التجزئة ونزع اللحم التي نلحظها على عظام مختلف الأنواع الحيوانية أن هذه الموارد الوحشية قد شكلت مورد التغذية اللحمية الرئيسية خلال عصر البرونز القديم.

وهكذا تثير التنقيبات في صيدا اهتماماً على أصعدة عدة: فأخيراً وللمرة الأولى ينكشف التعقيد والغنى الآثاري في كل مرحلة من مراحل تطور المدينة، وترتسم المعالم التي كنا حتى الآن نشك فقط بوجودها.
ونذكر أن هذه التنقيبات هي ثاني أكبر تنقيبات مدينية في لبنان بعد تنقيبات بيروت، ولكن على عكس تلك الأخيرة فالإمكانيات هنا لامحدودة. ومما يؤكد تفرد هذا المشروع هو جريان الأعمال على أراض استملكتها الدولة بهدف البحث الآثاري وحده. أما النتيجة الرئيسية لأعمالنا كما نراها هوإعداد تتابع ومادة مرجعية لبداية الألف الثالثة ق.م.، وذلك للمرة الأولى. أما هذا التتابع فيقدم خواصاً عديدة أهمها تميزه بتوسع مستمر وتطور تدريجي. إذ

صفات الانتقال بين العصر الكالكوليثي / عصر البرونز القديم I وحقبة عصر البرونز القديم II

الكالكوليثي / عصر البرونز القديم I	عصر البرونز القديم II
تغير في استعمال العجائن الغضارية وفي التصنيع : عجينة طرية.	تطور في شوي الفخار. ما تزال تستعمل العجائن الطرية.
تغير في تقنيات الزخرفة : طلي أحمر وأسود على الأشكال المفتوحة.	طلي أحمر على الأشكال المفتوحة، صيغة ترابيع ملونة وصقل تزييني على الأواني الصغيرة.
تغيير في الأشكال : أشكال مفتوحة للأكل والشرب.	أشكال مغلقة للتخزين أو للنقل.

صفات الانتقال بين عصر البرونز القديم II وحقبة عصر البرونز القديم III

عصر البرونز القديم II	عصر البرونز القديم III
تغير في استعمال العجائن الغضارية وفي التصنيع : عجينة طرية.	عجينة جيدة الشوي.
تغير في تقنيات الزخرفة : طلي أحمر على أشكال مفتوحة، صيغة ترابيع ملونة وصقل تزييني على الأواني الصغيرة.	تطغي تقنية التمشيط.
تغير في الأشكال : فخار دقيق وأوان صغيرة. تنويع.	أوان أكبر وأكثر سماكة. توحيد المنتجات.

أظهرت دراسة فخار عصر البرونز القديم حتى الآن أنه على الرغم من كونه يشبه الفخار الفلسطيني المعاصر فهناك أشكال تقترب من الفخار السوري. وهناك أشكال ليس لها شبيه حتى في لبنان. فباستثناء التنقيبات في بيبلوس وتل عرقا وبيروت وصور يبقى عصر البرونز القديم قليل الحضور في لبنان. وقد أثبتت أعمال التنقيب في صيدون، عن طريق التتابع الطبقي واللقى الأثرية، وجود إشغال مستمر باستثناء تباطؤ /هجر السوية ٢.

وما تزال الطريق طويلة قبل إتمام دراسة تشمل نماذج الفخار في عصر البرونز القديم في لبنان. أما هذه الدراسة فتشكل محاولة للتصنيف وتأسيس تسلسل زمني نسبي للفخار سوف يخدم كدليل لتطوير فهم الأساليب المحلية والعلاقات بين سورية وفلسطين خلال عصر البرونز القديم.

كذلك فقد أسفرت الحفريات عن وجود صناعات حجرية منذ نهاية العصر الكالكوليثي وبداية عصر البرونز القديم I وحتى عصر البرونز القديم III تقوم بدراستها كورين يزبك. وسيتم هنا عرض ثلاث من السويات الخمس التي قدمت صناعات يدوية حجرية. فعلى الرغم من صغر المساحة المكشوفة حتى الآن (المساحة ذاتها للسويات ١ و٢ و٣: ٤٤،٤٥ م٢) يقدم الموقع فرصة نادرة لمتابعة تطور الصناعات الحجرية في محيط مؤكد ولفترة زمنية ما يزال هذا النوع من الدراسات التي تخصها نادراً. فنادراً ما أثارت اهتماما كبيراً تلك الصناعات الحجرية التابعة للأوساط الزمنية اللاحقة للعصر الكالكوليثي في لبنان. إذ من المتعارف عليه عموماً أن الأدوات المعدنية قد حلت محل الأدوات الحجرية مع بداية التعدين خلال العصر الكالكوليثي ومع استخدام البرونز خلال

ضمن الطبقات المتعاقبة. دحرجت عموماً هذه الأختام أفقياً على محيط كتف الجرة وبعض الأحيان أيضا بشكل منحرف. وتكمن إحدى ميزات فن الأختام هذا في كونه من جهة يؤكد على هوية خاصة ببلاد المشرق كانت قد عرفت بفضل بيبلوس. أما من جهة أخرى فيكشف هذا الفن عن خاصية محلية تميز حرفيي صيدون. وتظهر طبعات ذلك العصر صيغاً هندسية كلاسيكية عبارة عن رسم مربعات. هناك رسمة واحدة فقط لشكل حلزوني شاقولي متشابك يظهر تشابهات تصويرية مع نماذج عثر عليها في ليرنا في اليونان تعود لحوالي ٢٥٠٠–٢٤٠٠ ق.م. أما الصيغ الحيوانية فشائعة ويطغي فيها تصوير الأسد على بقية الحيوانات.

فصيغة الأسد يطارد وعلاً، الاثنان متعاكسان، والتي تميز أسلوب بيبلوس، موجودة أيضا في صيدون. وتتشابه هذه الطبعات لدرجة تسمح بافتراض أنها قد نقشت في محرف واحد. ولكن الطبعات الأكثر إثارة للاهتمام في صيدون تتعلق بصنف من الزخارف المدعوة بـ "مشاهد العبادة".

تؤلف مجموعة من الطبعات مشهداً لشخص ذو مظهر حيواني يرفع ذراعاً ويرافقه أسد. وعلى الرغم من عدم شبه هذا الشخص تماماً للشخص ذي قرني الوعل الكبيرين، والذي يمثل وضعية شائعة في فلسطين، إلا أن شبهاً هاما يكمن بينهما في مبدأ إعطاء الإنسان مظاهر حيوانية. وهناك طبعة أخرى ترسم طقس خصب يمثل شخصاً يرافقه على الدوام أسد، وعضوه الجنسي مرسوم بوضوح بوضعية الانتصاب ويرفع ذراعاً، ثلاثة من أصابع يدها ممدودة بينما يحمل بيده الأخرى غصن نبات.

ويتم تحديد فخار عصر البرونز القديم انطلاقاً من مجموعة كسر وأوان ذات مقطع تام عثر عليها في سويات منضدة ويصل عددها إلى ٣٢٤٠. أما تطور النماذج حسب تصنيف الأشكال فقد أخذ أولاً بعين الاعتبار مع الاعتماد، بالنسبة لوصف اللقى، على المجموعات الخمسة التي أسسها د. غريفيثس بهدف تمييز التركيبات المختلفة للعجائن الغضارية. وتجدر ملاحظة أنه لم يستعمل هنا التعبير الخاص بالفخار المعدني المظهر « metallic ware » والذي يتميز بعجينة ناعمة مشوية بشدة ورانة إذا صدمت، وذلك تجنباً للبس إذ يشير التعبير إلى إنتاج منطقة الحرمون. وقد تم لهذا استبداله بتعبير الفخار المشط.

وأما التصنيف بحسب النموذج، أي بالاعتماد على الأشكال وحدها أو على التقنيات الزخرفية، فيبقى ناقصاً. إذ يمكن الحصول على معلومات جمة عن طريق دراسة العجائن ومكوناتها المعدنية والغضارية ومشتملاتها. وقد باشر دافيد غريفيثس بهذه الدراسة. تقوم التقنية المتبعة في صيدون على قطع صفيحات رقيقة بمنشار دائري مزود بأحجار ماسية يتم تبريده بالماء. تسمح هذه التقنية العملية وقليلة التكلفة بمراقبة تركيب العجائن وتصنيفها مبدئياً تحت خمس مجموعات متميزة. كما في مجال الأشكال، يمكن رؤية تطور بشكل رئيسي في المجموعة ٥ التي تميز السوية ٦ في صيدون. ويخف هذا التطور تدريجياً في السويات اللاحقة حتى يختفي في عصر البرونز القديم III. ويتفرد هذا النموذج بذرات ناعمة جداً ولون فاتح أو حتى أبيض، ويحتوي على عدد كبير من المنخربات ومستحاثات أخرى. وفي مقطع لصفيحة رقيقة يظهر هذا الغضار مرقشاً خال عموماً من الكوارتز. عجينة المجموعة ١ ناعمة وغنية بالحديد فيها مشتملات كلسية. تتميز أيضاً هذه العجينة بوجود كسر متطاولة من صخور غضارية غنية بالحديد. وتظهر هذه الصخور كسوراً طولانية. أما خاصية غضار المجموعة ٢ فتكمن بوجود مشتملات كلسية ومستحاثات وكالسيدوان مع وجود بعض الكسر الدائرية من صخور غضارية غنية بالحديد بالإضافة إلى مشتملات ناعمة غنية بالحديد. ويضاف إلى ذلك مشتملات كالسيتية في المجموعة ٣ القريبة جداً من المجموعة ٢. وتحتوي المجموعة النادرة جداً ٤ كسرة بازلتية خشنة.

وكما أشرنا أعلاه يتميز تصنيف هذه المادة بتطور تدريجي وتجانس على مدى السويات الستة. تقاليد الفخار تبقى ذاتها. أما التغيرات الطفيفة التي تميز بداية كل حقبة فتمثلها الجداول التالية :

من الجدل) الذي يميز بداية عصر البرونز القديم I وكذلك الأواني الشائعة التي تعكس استمرارية تقاليد كالكوليثية مثل الطاسات ذات الحواف القائمة والقاعدات المرتفعة. وتشير دراسة أنواع الفخار المختلفة وتواتر شواهدها على أن أكثر الأواني من السوية هذه هي طاسات للشرب أو للأكل بينما تطغي في السويات العليا الأشكال المغلقة التي تستعمل للتخزين أو النقل. وتتميز بعض الأشكال بلون غضارها الأبيض (المعمل ٥) المميز للسوية ١.

أما أول اكتشاف في صيدون لمنشأة من صنع الإنسان تعود للعصر الكالكوليثي فيوجد في دكرمان، وهو موقع يبعد حوالي ١ كم جنوب القطاع الذي نقوم حالياً بتنقيبه. وكان قد حدد موقع دكرمان على بعد حوالي ٣٠٠ م من خليج واسع دائري الشكل أشير إليه على الخارطة التي أنشأها غاياردو من أجل "بعثة فينيقيا" لإرنست رونان على أنه مرفأ "مصر الجنوبي". ولكن برنامج أخذ العينات الترابية الذي بوشر به هذه السنوات الأخيرة قد أثبت أن الخليج المستدير لم يحصل استخدامه أبداً كمرفأ محمي. بل على الأكثر كمرفأ توقف مفتوح على البحر كان يسمح بسحب السفن إلى الشواطئ. وتشكل هذه الملاحظة، إلى جانب اكتشاف سوية إشغال صخر القاع خلال تنقيباتنا، الاستمرار التاريخي لإشغال دكرمان. ونشهد هكذا في بداية الألف الثالثة تجديد موقع السكن ليتمركز على التل ويقترب كثيرا من المرفأ المحمي. أي المرفأ الشمالي قريباً من القصر البحري. ويشكل هذا التنظيم الجديد للمحيط المدني تغييراً هاماً بالنسبة للعصر السابق كما يشير إلى بدء المبادلات التجارية المتعلقة بالتوسع الاقتصادي والمرفئي لصيدون.

أما السوية ٢ التي تتبع مباشرة السوية ١ فعبارة عن حقبة فقيرة إلى حد ما، كونها نوعا من الإنقطاع يتمثل بطبقة رملية تحتوي على القليل جداً من الكسر الفخارية وتصل سماكتها إلى حوالي ٢٠ سم.

وفي مجال الفخار تتميز السويتان اللاحقتان ٣ و٤، اللتان تعودان لعصر البرونز القديم IIA/B، باختفاء أغلبية النماذج السابقة وبظهور نماذج متعددة كالطاسات الحادة الزوايا التي تشكل دليلاً قاطعاً على عصر البرونز القديم II.

وهناك كسرة إبريق من السوية ٣ عليها طلاء أسود وصقل شاقولي، شوهد مثلها في بيبلوس وفي مواقع فلسطينية عديدة، تمثل نموذجاً خاصاً نجده أيضا في قبور السلالة الأولى في أبيدوس وكذلك في سقارة. فهي أحد العناصر التي تسمح بإقامة صلة بين التسلسل التاريخي في فلسطين، أي بداية عصر البرونز القديم II والتسلسل التاريخي المصري.

تعود السويتان ٥ و٦ إلى عصر البرونز القديم III A/B وتمثلان استمرارية السويات السابقة.

لم يتم العثور في صيدون على أية كسرة من الفخار المسمى خربة كرك والذي يميز سويات عصر البرونز القديم III في فلسطين.

ولكن من ناحية أخرى فإن صنف الفخار الذي يحدد بنسبته المئوية فعلياً طابع الإنتاج في نهاية الألف الثالثة ق.م. يتمثل بالجرة المسماة الفم المثقوب hole-mouth أو الجرة دون رقبة مضلعة الجدار.

ولهذا الانتاج أهمية مزدوجة : فهو يشير أولاً إلى توزع جغرافي خاص وبالتالي إقامة مقارنات، وللمرة الأولى في صيدون، مع نماذج سورية من حماه وتل مرديخ والعمق وليس مع الجرار دون رقبة التي عثر عليها في فلسطين وتعود للعصر ذاته وتمثل الأشكال النموذجية في صيدون. من جهة أخرى فإن النسبة المئوية المرتفعة للجرار والتي تصل إلى أوجها في نهاية عصر البرونز القديم III B (السوية ٦) تدل على نزعة نحو توحيد نمط الأشكال نتجت على الأغلب عن الحاجة لزيادة الإنتاج. ويشكل هذا التنميط، إلى جانب ارتفاع عدد الكسر الفخارية، دليلاً هاماً على حركة تمدن كما يشهد على حيوية صيدون المستمرة حتى نهاية الألف الثالثة قبل الميلاد. ويشكل التمشيط الأفقي والمتصالب الزخرفة الأكثر تمييزاً.

أما فخار السوية ٦، التي تمثل في صيدون السوية الأكثر حداثة من عصر البرونز القديم وتسبق السوية الأولى من عصر البرونز الوسيط I/IIA ، فلا يختلف في مواصفاته عن فخار السوية ٥. وقد وصف هذا الفخار بكونه ينتمي لعصر البرونز القديم IIIB بهدف الإشارة إلى علاقته القريبة من فخار عصر البرونز القديم III. غير أن هناك أشكالاً محددة تميز هذه السوية :

- الجرة المشطة وتشبه إلى حد كبير أخريات من مدفن الجيزة مؤرخة بدقة ما بين السلالة الخامسة والرابعة في حدود عام ٢٥٠٠ ق.م.
- يمكن مقارنة الإبريق الذي تنتهي عروته من الأعلى برأس كبش يضع فمه على حافة الآنية بالإبريق المزدوج ذو العروة الذي عثر عليه في بيبلوس والمؤرخ ما بين ٣١٠٠ و٢٨٠٠ ق.م. يجد موريس دونان نماذج أخرى مشابهة في معبد الحرم المقدس حيث تم تأريخ توضعات القرابين إلى الفترة التي سبقت هدم المدينة حوالي عام ٢٢٠٠–٢١٥٠ ق.م.

أما بالنسبة لفن البناء فاستمرارية أعمال التنقيب ضرورية للتمكن من تقييم امتداد العناصر المختلفة وصفتها. ونلاحظ في هذه المرحلة شيوع الأرضيات المطلية بالكلس ترافقها تجهيزات لخدمة حاجات منزلية. تتألف التجهيزة المنزلية في السوية الأحدث، ٦، من جرن بازلتي ومن جاروشة ثابتة كلسية وكذلك من حوض بازلتي كانت كلها تحاذي ألواحاً حجرية مسطحة استخدمت كمناضد عمل.

- عثر كذلك في صيدون على ٢٤ طبعة لأختام اسطوانية على جرار؛ كان بعض تلك الجرار على سطح الموقع وبعضها الآخر

ملخّص

حصلت المديرية العامة للآثار في لبنان على ثلاثة أجزاء من الأرض في مركز مدينة صيدا تصل مساحتها إلى حوالي ٣٠،٠٠٠ م². وكان ذلك عام ١٩٦٧ بفضل المدير العام حينذاك الأمير موريس شهاب. يعود الجزء الأول إلى الأرض التابعة لقصر القديس لويس ويفصله شارع عن الجزء الثاني. أما الجزء الثالث والذي ندعوه "موقع الكلية" أو قطاع الكليات والواقع على المنحدر الشمالي للتلة، فقد كانت تشغله مؤسسات تعليمية. كانت هناك كلية الأخوية المريمية من جهة ومدرسة الجمعية البروتستانتية الأميركية من جهة أخرى. وقد تم هدم كلتيهما حوالي عام ١٩٦٥، حيث قام موريس دونان ببعض من أسباره.

وفي عام ١٩٩٨ سمحت المديرية العامة للآثار في لبنان للمتحف البريطاني ببدء بحوثه في المدينة. وهكذا بدا فجأة ولأول مرة القيام بتنقيب منهجي لصيدون، تلك المدينة الصغيرة التي عرفها التاريخ من خلال النصوص القديمة، فرصة فريدة.

أما تمويل أعمال التنقيب فيؤمنه كل من المتحف البريطاني والأكاديمية البريطانية ومجمع البحوث البريطانية في بلاد المشرق ومكتب الخارجية والكمنويلث إلى جانب إعانات مالية من جهات لبنانية خاصة كمؤسسة الحريري وبنك بيبلوس ونوكيا لبنان. وتدعم المديرية العامة للآثار في لبنان أعمال التنقيب. أما فريق العمل فيضم أعضاء من المتحف البريطاني وحوالي خمس عشرة طالباً من الجامعة اللبنانية في صيدون. ويقوم جون كيرتس، الأمين العام لقسم آثار الشرق الأدنى، بدور المستشار الخاص للبعثة.

بالإضافة لهذه التنقيبات فقد جرى أخذ سلسلة عينات للتربة في المدينة القديمة ومنطقة المرفأ بمرافقة جامعة إكس آن بروفانس (Aix-en-Provence)، وذلك بهدف رسم حدود الأحواض المرفئية وتأريخها.

وقع الخيار على قطاع الكليات للبدء بأعمال التنقيب عام ١٩٩٨ وذلك بسبب اعتبارات عدة.

– في الدرجة الأولى هناك اكتشاف كسر رخامية تعود لقاعدة عمود مزخرفة بنتوءات ولتاج عمود أخميني صور عليه رأسا ثورين يستند كل منهما إلى ظهر الآخر. حصل ذلك عام ١٨٨٠ خلال عمليات الحفر لوضع أساسات كلية البعثة الأمريكية. وقد اقترح شارل كليرمونت-غانو انتماء هذه البقايا المعمارية إلى حديقة متعة من العصر الفارسي والتي أوردها ديودور الصقلي على أنها "أبادانا (صالة العرش في قصر) صيدون".

– أما الاعتبار الثاني فيتعلق بعدم توافر أية معلومات عن طبوغرافية المدينة، مما حتم قبول فرضية استمرارية السكن والتوسع في قلب المدينة. كانت المدينة خلال القرون الوسطى محاطة بسور. ويساير قطاع الكليات هذا السور في موقع خندق المدينة تماماً. فبدا لذلك القطاع المكان الأمثل للتوصل إلى السويات الأقدم للمدينة حيث يعتبر الخندق بشكل عام مكان حماية لم يكن يبنى فيه.

ونورد أن موريس دونان لم يعثر في أسباره عام ١٩٦٧ في قطاع "الكليات" إلا على سويات مخربة، فهو يصف في تقريره وضعاً مشابهاً تماماً للذي خبرناه في بدء الحفريات.

و يكتب دونان: "في موضع أساسات المدرسة وعلى الرغم من بلوغنا أعماقاً تصل إلى الخمسة أمتار، إلا أنه لم تمكن ملاحظة أية تعاقب طبقي. فالجدران مقتلعة وبالكاد نبدأ الخروج من هذه الفوضى". وقد تطلب الأمر عام ١٩٩٨ الحفر بالجرافة لمدة ثلاثة أسابيع لبلوغ السويات المتعاقبة غير المخربة. عثر في الردم على كسر كثيرة تعود إلى أعمدة وتيجان وتماثيل، منها تلك التي تعود لتمثال هرمس مرتديا "كلاميس" chlamys (ثوباً قصيراً يصل إلى الركبتين) يغطي له كتفا واحداً.

ويعرض هذا المجلد النتائج الرئيسية لأعمال سنوات ١٩٩٨ و٢٠٠٠ و٢٠٠١. يعرض كذلك للمرة الأولى التعاقب الطبقي المستمر لمدينة صيدون خلال الألف الثالثة ق.م.

أما موقع صيدون فهو الوحيد حالياً على ساحل لبنان حيث سويات بداية الألف الثالثة ق.م. سهلة البلوغ، مما يشكل أحد أكثر الجوانب إثارة لهذه الحفرية.

ويتكون التعاقب الطبقي في صيدون من تسلسل ست سويات سكن توحي بتوسع مستمر وتطور متدرج منذ نهاية عصر البرونز القديم I وحتى نهاية عصر البرونز القديم III. ونلاحظ الاستمرار ذاته منذ نهاية الألف الثالثة وحتى بداية الألف الثانية. أما الانقطاع الوحيد فتمكن ملاحظته بين نهاية عصر البرونز القديم I وبداية عصر البرونز القديم II، أي حوالي سنة ٣٠٠٠ ق.م.

يعود صخر القاع الذي أمكن بلوغه إلى السوية ١. ويتكون من حجر رملي سيليسي مضغوط الذي هو حجر الرملة المحلي والذي عثر عليه أيضا خلال مواسم أخذ عينات التربة على حدود الأحواض المرفئية. وفي هذه السوية الأقدم، يجب الإشارة إلى ثلاثة أنواع من الفخار المطلي بالأسود والأحمر (التي ما يزال أصلها يثير الكثير

تمهيد

كان ذلك عام ١٩٩٤ عندما بدأ الأصدقاء اللبنانيون البريطانيون للمتحف الوطني إصدار نشرة "أخبار المتحف الوطني"، بالنيابة عن دائرة الآثار. وكان هدف تلك النشرة، حسبما صرح المدير العام، "تمثيل تطلعات دائرة الآثار اللبنانية ونشاطاتها وآمالها".

كانت أعمال إعادة البناء خلال فترة ما بعد الحرب جارية على قدم وساق في لبنان وكانت الدائرة حينئذ تواجه مهمة ضخمة هي إنقاذ كنوز البلد الأثرية. وكانت هناك حاجة ماسة للدعاية بهدف توعية الشعب على المتحف الوطني لبيروت وتوجيه التقدم الحاصل في إعادة بنائه. أما "أخبار المتحف الوطني" فكانت حينئذ النشرة الوحيدة التي تعطي معلوماتاً تتعلق بالمشاريع الآثارية والترميمية التابعة للمتحف ومجموعته.

وفي تشرين الثاني من عام ١٩٩٧ فتح المتحف الوطني في بيروت أبوابه من جديد ووسعت منذ ذلك الحين "أخبار المتحف الوطني" مجالها لتتطور من منشورة محصورة بالمتحف إلى مجلة مستقلة للتاريخ والآثار حيث يشكل لبنان حقل الدراسات الرئيسية فيها. ويشكل الاستمرار في نشر المعلومات عن الإرث الثقافي اللبناني هدف المجلة الجديدة المعروفة حالياً باسم "الآثار والتاريخ في لبنان".

يغطي هذا الكتاب أكثر برامج البحوث التي شرع بها خلال تلك الفترة في المدن القديمة اللبنانية، أي : صور وتل الرشيدية وصيدا واشمون وشحيم وبيروت وبيبلوس وينوح وتل عرقا وحورية ووادي قاديشا والأرز وبعلبك وكامد اللوز. يقدم كلاً من هذه المدن مؤرخ وآثاري رئيسي يقوم بتلخيص إنجازاته على الموقع خلال عشر سنين. وهنالك مقالات عامة أخرى تمثل نخبة من "أخبار المتحف الوطني" و"الآثار والتاريخ في لبنان" نشرت خلال السنوات العشرة الأخيرة وتبحث موضوع رحالة ورسامين وهواة تجميع ...إلخ. من القرن التاسع عشر.

نود أن نشكر السيد كميل أسمر المدير السابق للآثار لتعبيره عن رغبته بإحداث هذه المجلة ولكل الجهود التي بذلها لتشجيع نشرها. ويطول شكرنا المدير الحالي السيد فريديريك حسيني لمساعدته ودعمه، وكذلك لأعضاء هيئة تحرير مجلة "الآثار والتاريخ في لبنان" لإخلاصهم وعملهم العام على مر السنين السيدة مارتين حرموش-تابت وآن رباط وأنديريه رزق وزينة قربان ومارلين مالك ورالدا بولص. وندين بالاعتراف بالجميل لمجموعة بنك بيبلوس وأديروجمعية تأمين البنوك الشعبية الفرنسية والسيد فيليب جبر لدعمهم العام والتمويل.

كلود ضومت سرحال

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تنقيبات موقع الثانوية الآثارية
(١٩٩٨-٢٠٠٠-٢٠٠١)

بقلم
كلود ضومط سرحال

بمشاركة
دافيد غريفيث، كورين يزبك وايمانوال ڤيلا

طبع هذا الكتاب بمساهمة المديرية العامة للتعاون الدولي والتنمية
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تشكل صيدا منذ القدم إحدى أهم عواصم الشرق الأدنى. إذ يرد ذكرها ثمانية وثلاثين مرة في كتاب العهد القديم وتذكر في سفر التكوين على أنها أقدم مدينة كنعانية، "وكنعان ولد صيدون بكره وحثاً". وبسبب النسيج المعماري الكثيف للمدينة فقد بقيت البحوث الأثرية فيها عشوائية ومتفرقة. أما أعمال التنقيب التي قام بها المتحف البريطاني في الجزء المسمى "موقع الكلية" ("College site")، فقد سمحت بالوصول إلى سويات عصر البرونز القديم منذ موسم التنقيب الأول عام ١٩٩٨. شكل تحديد التسلسل الطبقي في صيدون خلال الألف الثالثة ق. م. أحد أهم أهدافنا في خطة العمل. وتبقى الغاية الآن توسيع رقعة التنقيب للحصول على تجمعات واسعة ولكشف مخطط مديني وكذلك لفهم أفضل للتنظيم العام للسكن.

يؤلف هذا المجلد الذي يجمع مكتشفات الأعوام ١٩٩٨، ٢٠٠٠ و٢٠٠١ قاعدة أساسية لفهم تطور المواقع الأثرية في الجزء الشمالي من بلاد المشرق خلال الألف الثالث ق.م.

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كلود ضومط سرحال

بمشاركة
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